SAMSUNG

SERVICE MANUAL

SDC-80

SAMSUNG ELECTRONICS

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SAMSUNG

DIGITAL CAMERA

SDC-80

SERVICE Manual

DIGITAL CAMERA

CONTENTS

1. Introduction

2. Specifications

3. Disassembly and Reassembly

4. Exploded View and Parts List

5. Adjustment

6. Electrical Parts List

7. PCB Diagrams

8. Wiring Diagram

9. Schematic Diagrams

UPDATE LOG SHEET

Application Data	Page	Part #	Note(Cause & Solution)	S/Bulletin #

Use this page to keep any special servicing information. (Service Bulletin, etc.)
If only parts number changes, Just change parts number directly on parts list.
And if you need more information, please see the service bulletin

1. Introduction

1-1. Camera Adjustment Program

1-1-1. About the Program

The program is to adjust a camera and diagnose a fault when the unit is serviced. The program isn't provided for customers and only service center to check the camera setting without disassembling and read/modify the camera control value. Some functions not required in service center aren't used.

1. Provision for program

The program isn't provided with the additional disc and must be downloaded from Single.

2. System Requirements

1. IBM compatible PC (pentium standard)
2. Windows 95 & Mouse
3. Video Card supported more than 256 color
4. 5MB Hard disk space

3. Program Functions

1. SSFDC(SMART MEDIA) FORMAT, DELETE ALL
2. FUNCTION KEY TEST
3. LCD PIXEL TEST
4. LOGO TEST
5. CONTROL LED TEST, LCD PANEL TEST
6. MACRO MODE CHECK, VIDEO JACK TEST, STROBO (FLASH) JACK CHECK
7. OSD (ON SCREEN DISPLAY) OFF
8. PC SHOT, SELF TIMER SHOT
9. AE ADJUSTMENT
10. 3100K, 5100K WHITE BALANCE ADJUSTMENT
11. JPEG, THUMBNAIL DOWN LOAD
12. BACK FOCUS ADJUSTMENT MODE
13. POWER CONSTANT ON
14. RS-232C CHANGER TEST
15. NTST, PAL CONVERT ADJUSTMENT

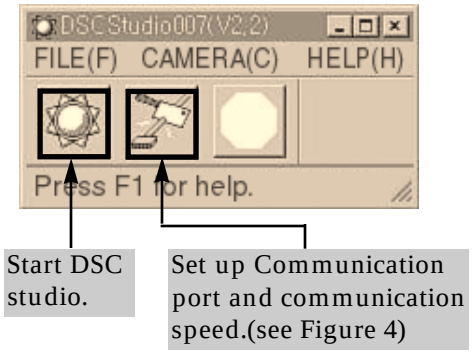
4.Installing Program

1. Unzip the Dscstudi.zip file downloaded from Single in a folder.
2. Execute the Setup.exe file in the unzipped files.
3. Install as dialog box's message.
4. After completing the installation, check to run the DSCStudio.exe file in the folder where program is installed.

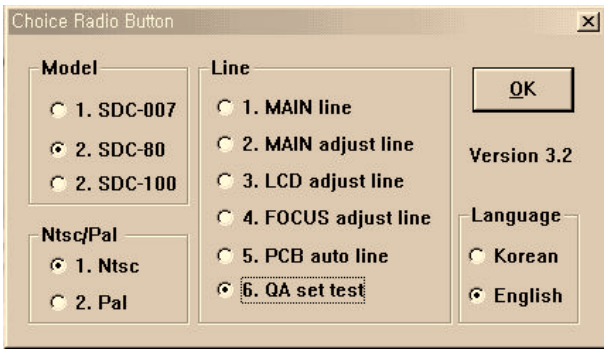
* Generally, it is created in C:\Program files\Samsung\DSCStudio.

1-1-2. DSCStudio Description

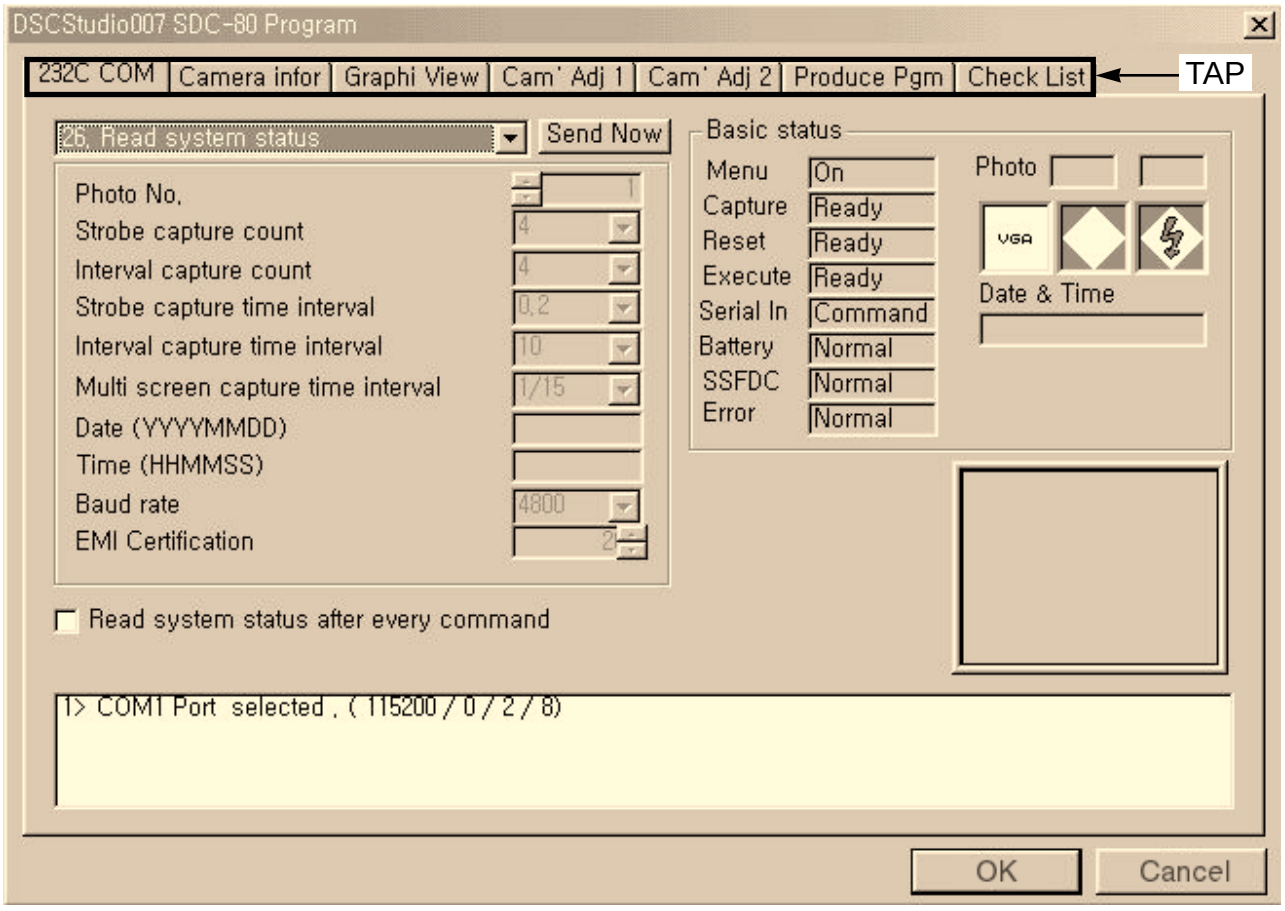
• Program start : Turn on PC for Windows → Connect PC with camera → Power on camera
→ Execute DSCStudio.exe in Windows


DSCStudio007(V2.2)
FILE(F) CAMERA(C) HELP(H)
Press F1 for help.
Start DSC studio.
Set up Communication port and communication speed.(see Figure 4)

(Figure 1) Initial screen dialog box

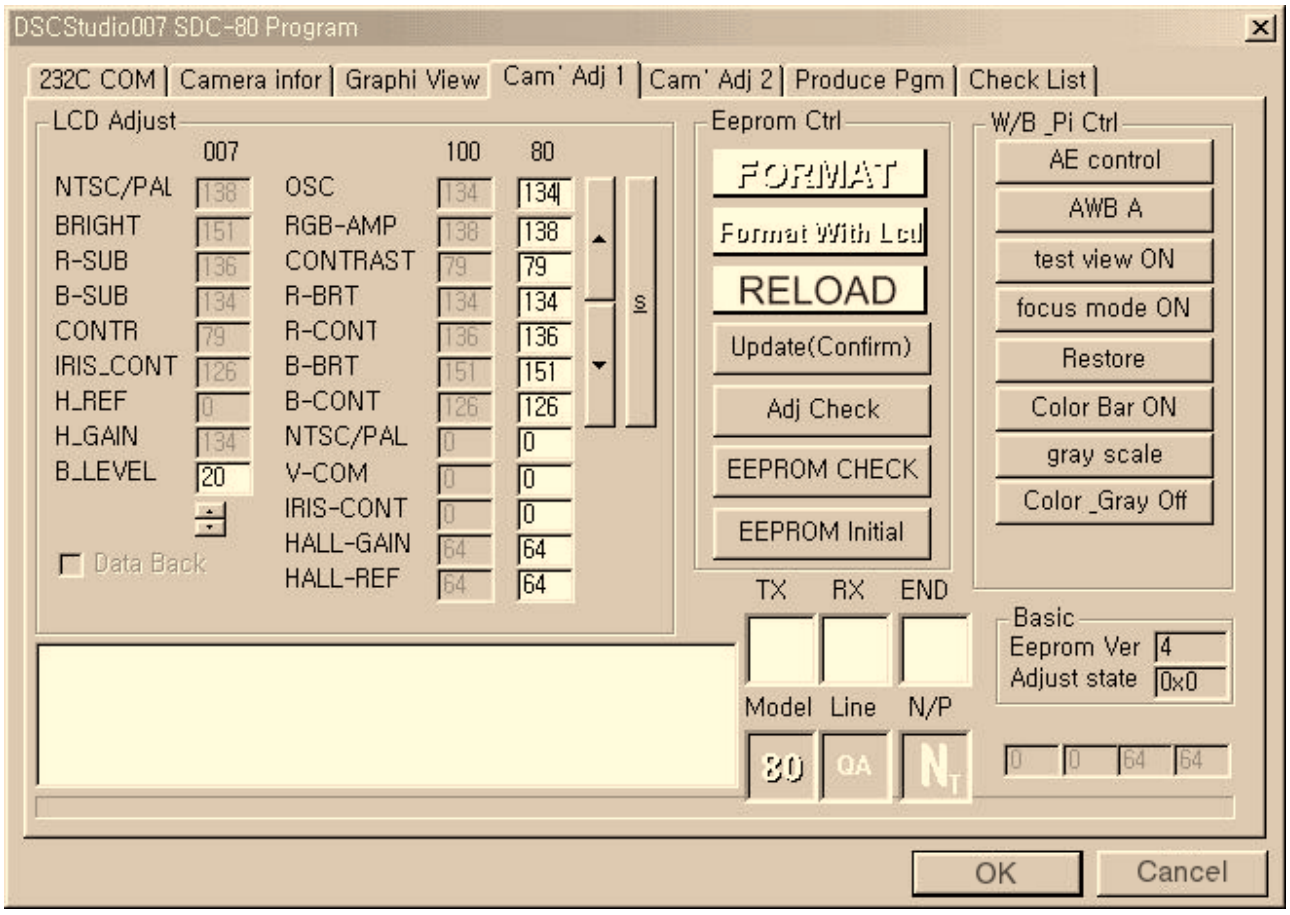


(Figure 2) Choice screen dialog box



(Figure 3) Basic communication dialog box

About TAP : • Camera Adjustment I : (see Figure 5) • Camera Adjustment II : (see Figure 6)
• View Graphic File : (see Figure 7) • Test Options : (see Figure 8)
• PGM for Manufacturing : (see Figure 9)

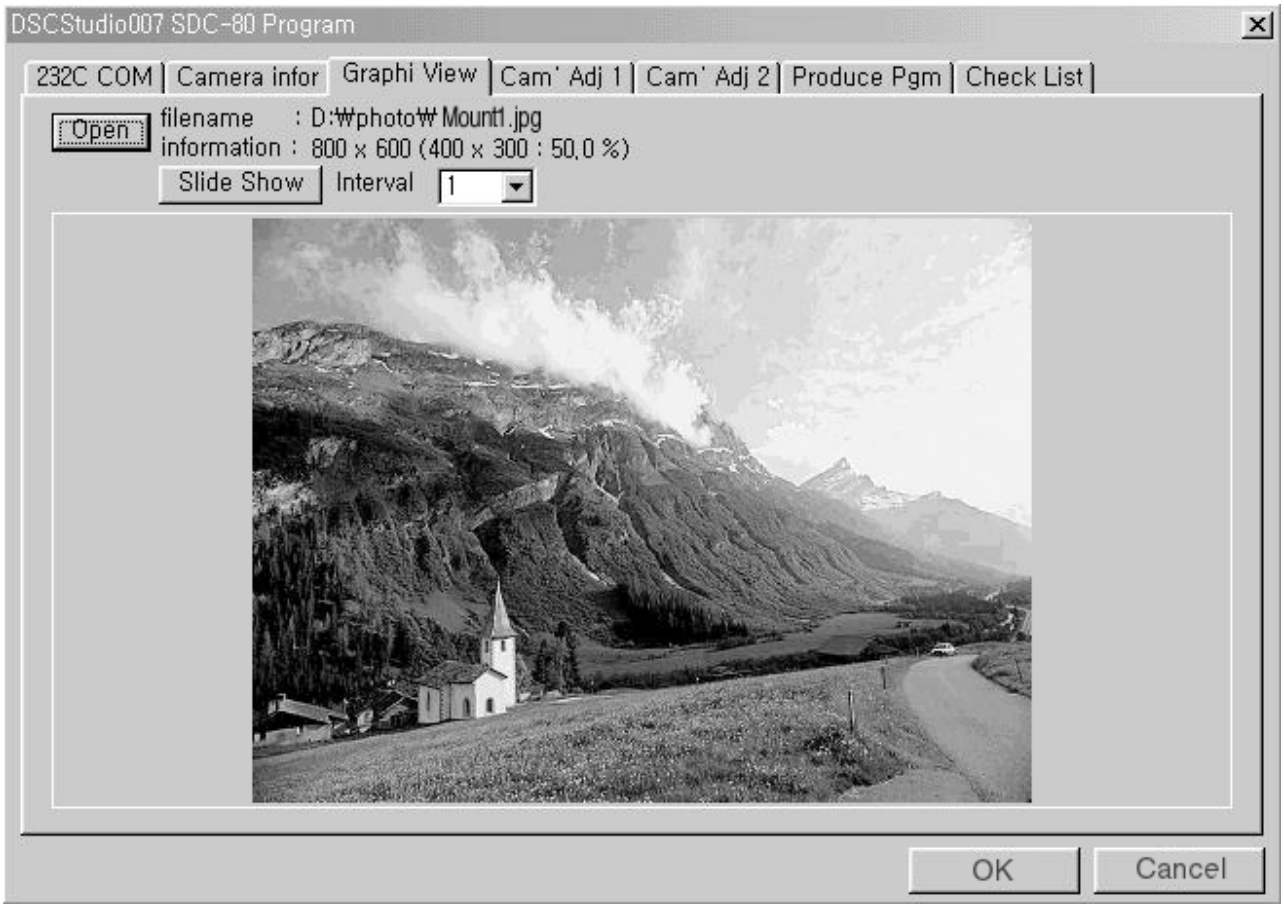


(Figure 5) Camera Adjustment I

- **Describe the relevant things only in (Figure 4).**
  1. In the DCAM_PARAMETER, the DTL_Glain value is used for HeXa value.
     For instance, if DTL_Gain=2631720 is translated into HeXa, it means 0x282828. So y=0x28, Cr=0x28 and Cb=0x28.
  2. In the LCD_Control, the settings are EVR value and also affect LCD output.
  3. The Color Bar ON / OFF option can be used to display color bar with LCD and VIDEO OUT.
  4. The Update option can be used to write the currently displayed number with EEPROM.
  5. The Restore option can be used to restore to the first loaded value (EEPROM value before updating).
  6. The Format option can be used to write the EEPROM default value saved in dscdtuio007.ini. of the window folder.
     ("0xff" is the initially empty EEPROM value.)
     Note) The Format is similar to the Format with LCD option without LCD control value.
  7. The Reload option can be used to display the currently recorded EEPROM value on the screen.

***Note**

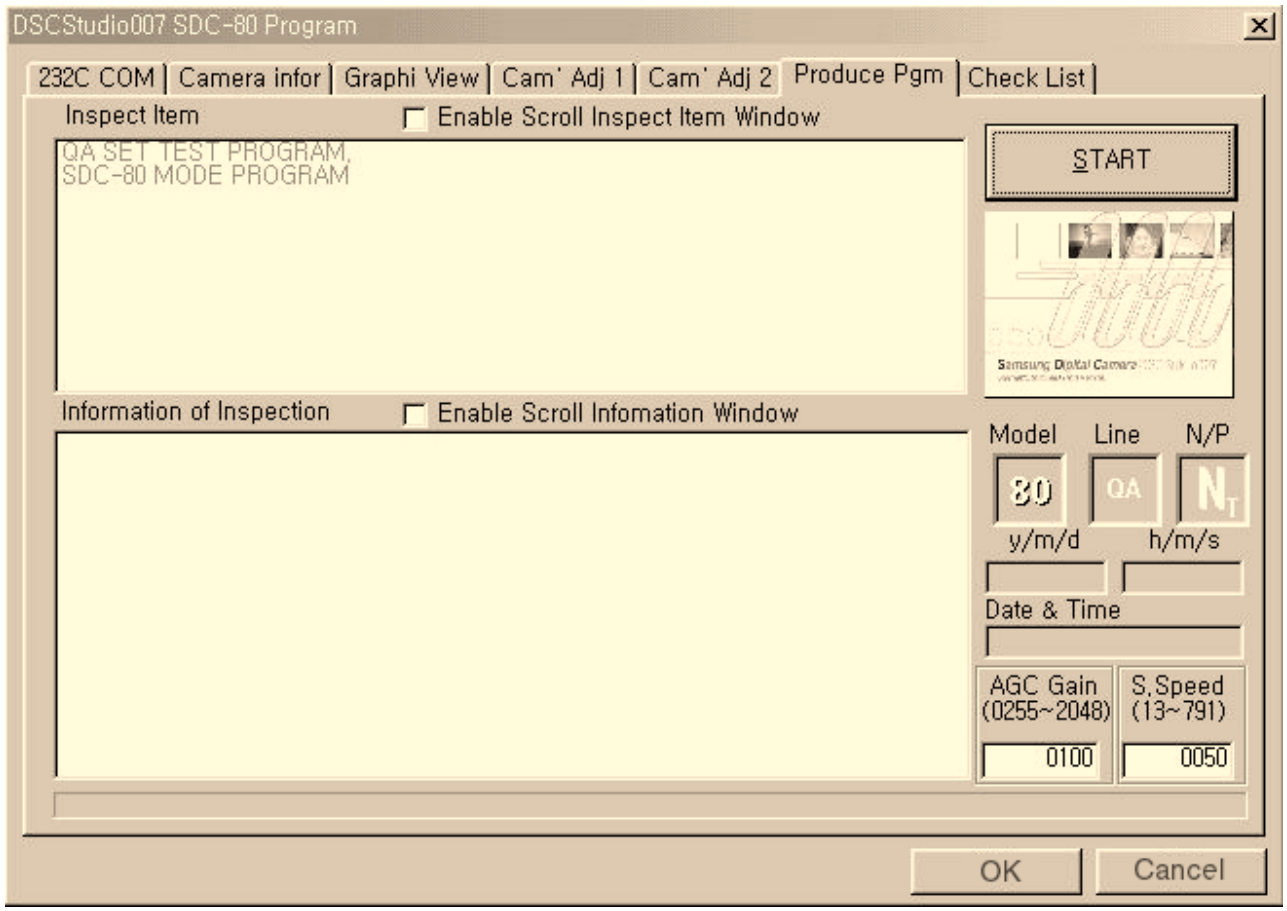
- The model set value is 007 in the PGM mode. However, error occurred when 80 sets are connected to adjust.
- Make sure that the testing model is the same with the running model in program.



(Figure 7) View Graphic File

- **The JPEG image can be displayed without any image edit program.**
  1. Click the Open button to display the file saved as a JPEG format.
  2. Click the Slid Show button to display the file containing in the option at an specified interval.

11.Black Level Adj:
12.AE Adjustment: Adjust the Hall value automatically.
13.3100K W/B test : Set 3100K(incandescent light temperature) white balance.
14.5100K W/B test : Set 5100K(fluorescent light temperature) white balance.
15.Thumbnail Down load : Transfer thumbnail image in the smart media card into PC.
16.JPEG Down Load : Transfer image in the smart media card into PC.
17.Shot 0: Function SHUTTER in camera photo mode.
18.Shot 0: Function SHUTTER in camera photo mode.
19.Shot 0: Function SHUTTER in camera photo mode.



(Figure 9) PGM for Manufacturing

- **Run the PI program.**
  The settings of the Test Options (see Figure 7) are applied as a sequence.
  Click the START button to run.
  The edit function is enabled when Vs appear in the check boxes of Enable Scroll Inspect Item Window and Enable Scroll Information Window.

2. Specifications

System		Specifications
CCD		Progressive 0.85M pixel
Number of pixels		1024 x 768 pixel (XGA)
Color Depth		24 bits True Color
Memory capacity		Extra (smart media card 4MB / 3.3V)
Image Capacity		Standard (quality-about 20 / high quality-about 10)
Lens		Dual fixed focus F:2.8f = 6.6
Focus Length		Normal (50cm ~) Macro (5 ~ 50cm)
View Finder		OVF (optical view finder) & color LCD
Shutter Speed		Electric Shutter (1 / 8 ~ 1 / 2000)
Exposure		Auto / Manual
White Balance		Auto
Video Out		Both NTSC type & PAL type
Power Source		5.0V:A type battery, 3.6V:Li-ion charger
PC Interface		Serial Transmission (RS 232C : Max 115.2kbps)
Compression		Standard JPEG
Support O / S		MS-Windows 95, 98
S / W		CD-Rom (TWAIN Driver, iPhotoExpress)
Dimensions		102 x 75 x 40 (Length x Height x Width)
Net Weigh		Less than 199g (not including battery pack)
Basic Shooting Mode	Standard Shooting	Full Size Shooting : 1152 x 864 (SQ / HQ)
	General Shooting	VGA Size Shooting : 640 x 480 (SQ / HQ)
	B / W Shooting	Full Size B / W : 1152 x 854 (SQ / HQ)
Special Shooting Mode	Multi Shooting	Full Size Division : 1152x 864 (SQ / HQ) - 4 ~ 16 Images Division
	Continuous Shooting	VGA Size continuation : 640 x 480 (SQ / HQ) - 3 ~ 6 Images Division
Play Mode	Normal Playback	One Image at a time, full size playback
	Magnified Playback	4 times magnified playback by parts
	Multi Playback	6 images-divided multi playback
	Automatic Playback	Automatic interval playback
Erase Mode	Selective Erase	Erase selected images among divided images
	Full Erase	Erase all the memories
	Erase Prevention	Prevent accidental erase of precious images
Setting Mode		Menu bar type control for each status
Transmission Mode		PC interfacing only mode
Others		- Direct interfacing mode - Manual adjust mode : adjusting exposure - Navigation key control : 4-direction movement and selection

⌘ The technical specifications and design may be changed without notice.

MEMO

3. Disassembly and Reassembly

3-1. Cabinet Disassembly

3-1-1. Ass'y CASE-TOP Removal

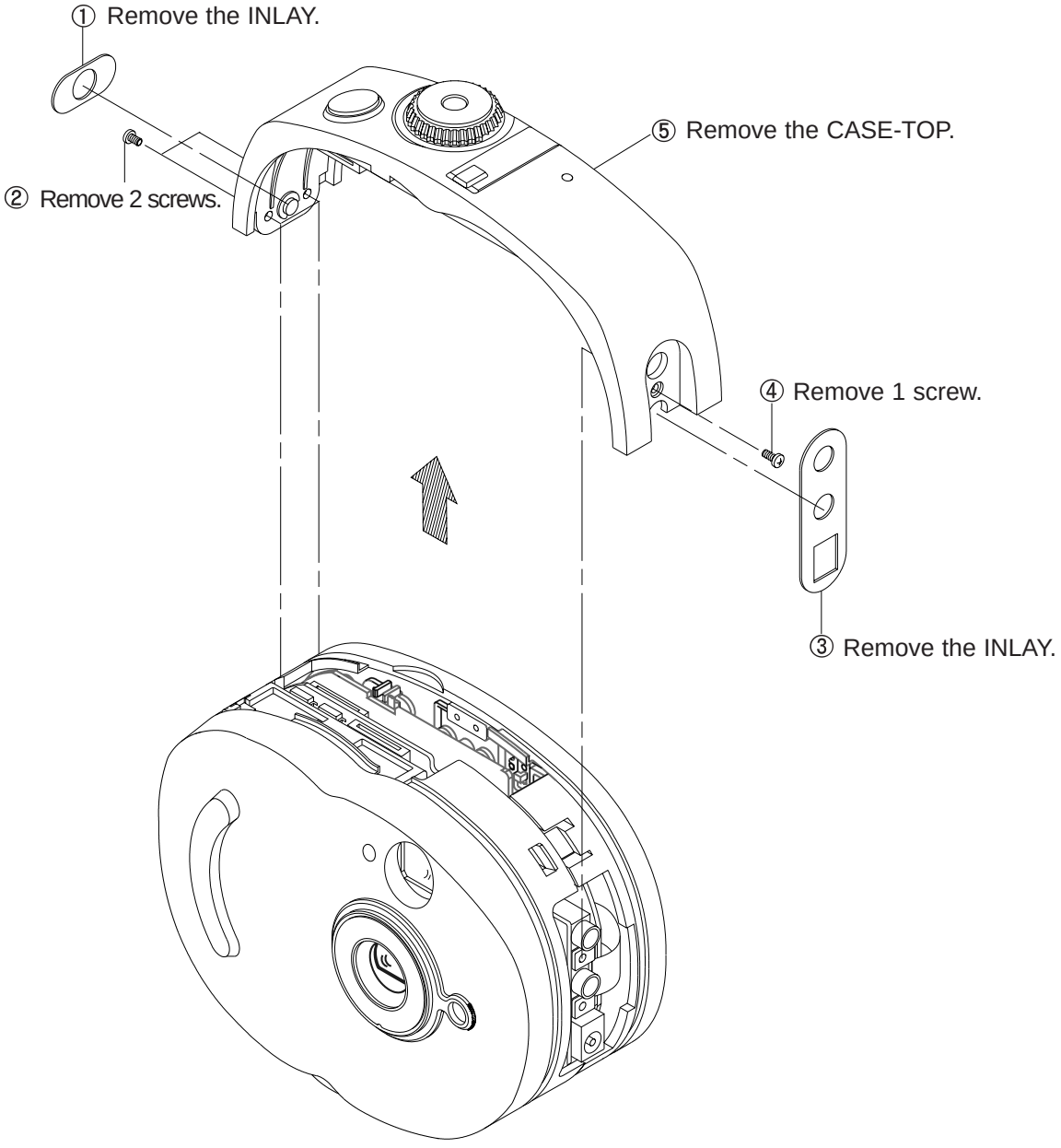


Fig. 3-1 Ass'y CASE-TOP Removal

3-1-2. Ass'y CASE-BOTTOM Removal

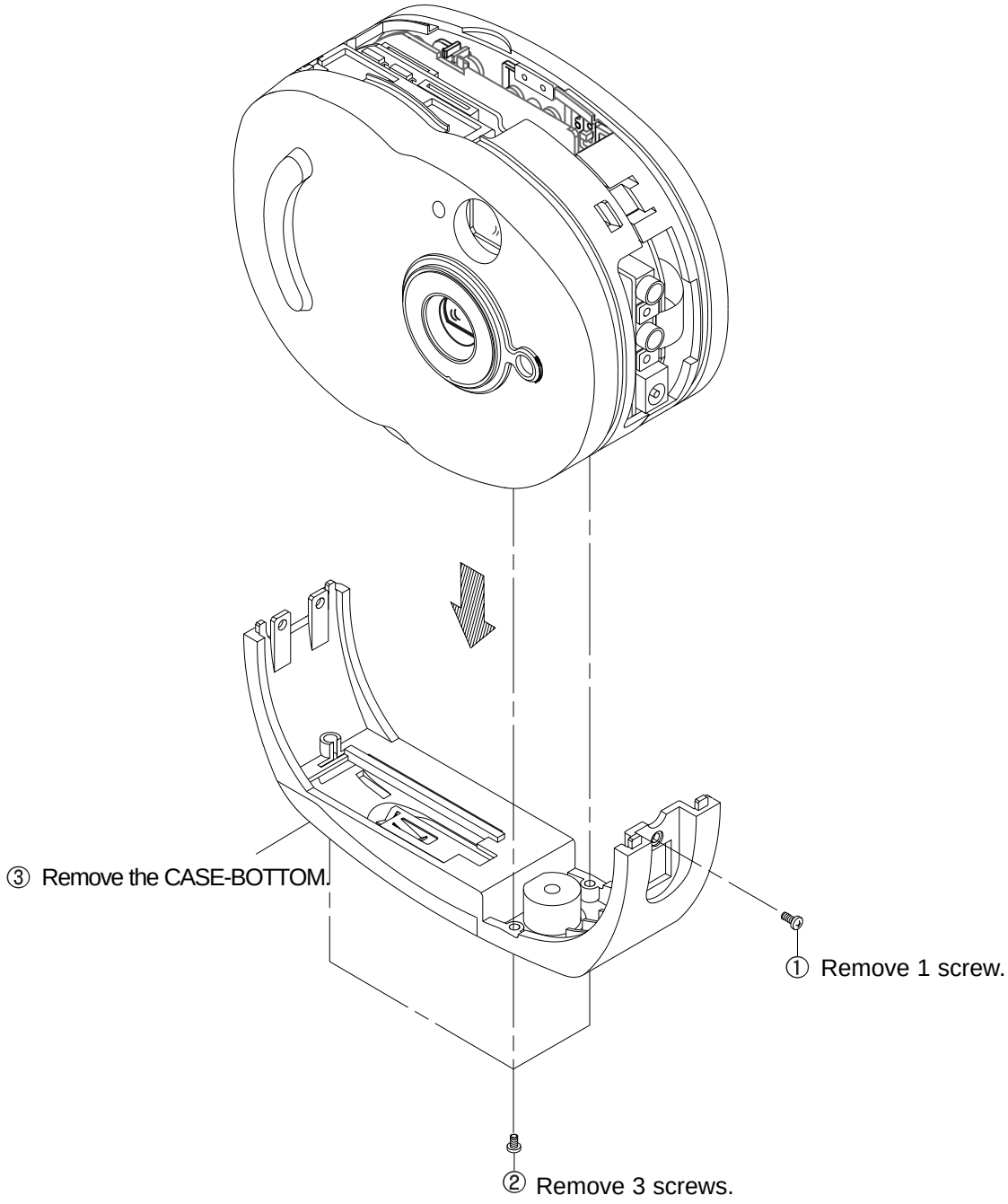
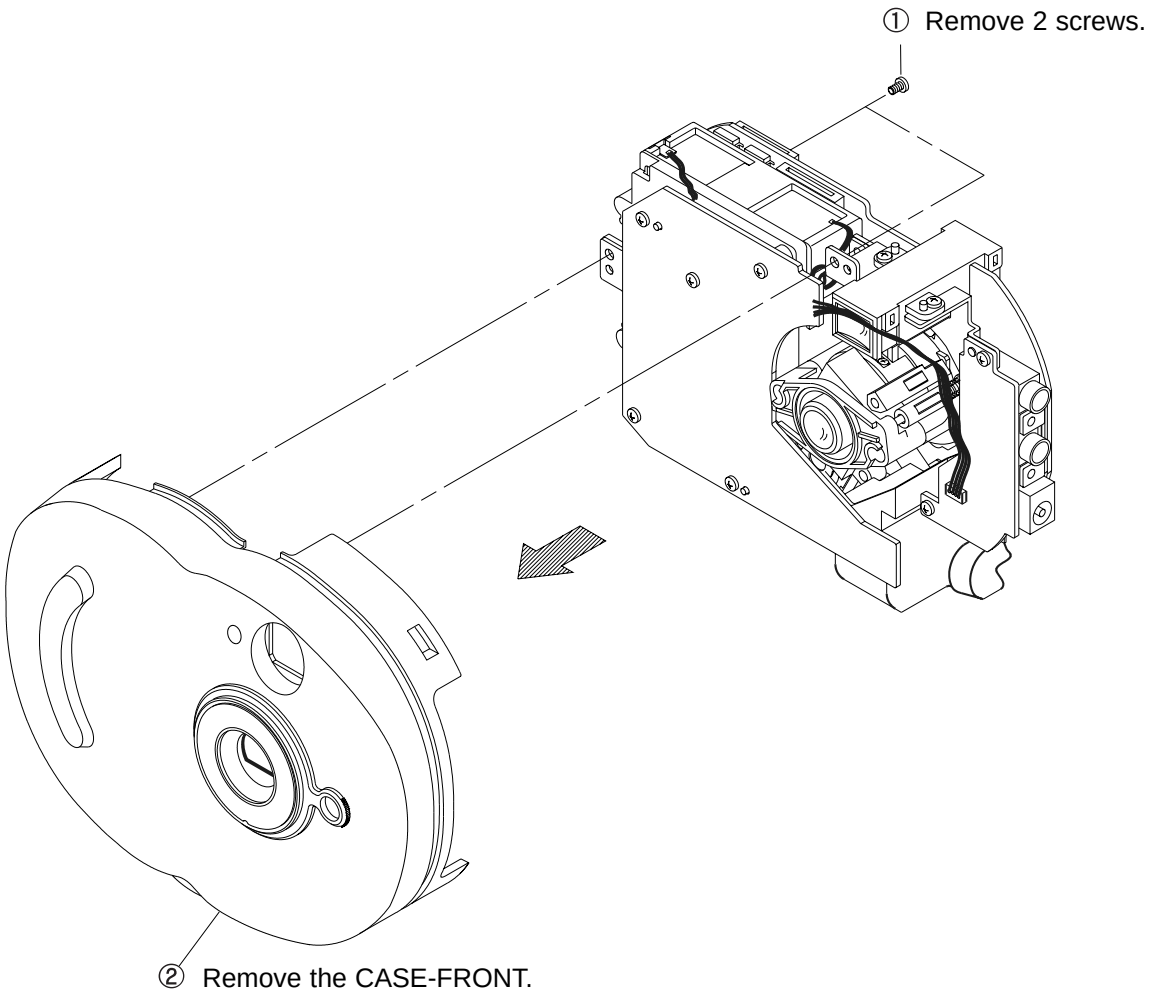


Fig. 3-2 Ass'y CASE-BOTTOM Removal

3-1-4. Ass'y CASE-FRONT Removal



* Be careful to assemble MACRO-LEVER with LENS-MACRO when assembling the case-front.

Fig. 3-4 Ass'y CASE-FRONT Removal

3-1-6. Ass'y MAIN Removal

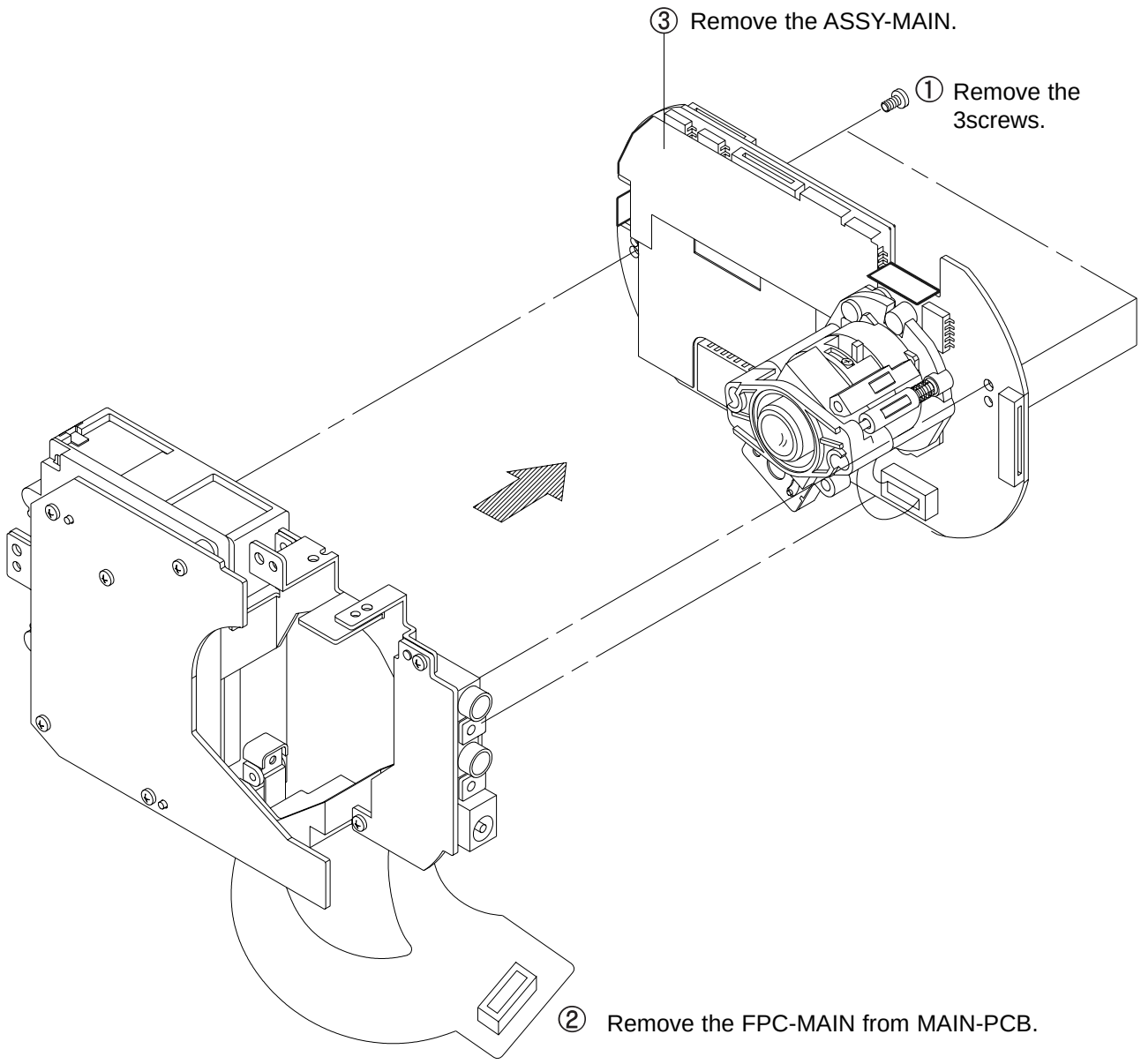


Fig. 3-6 Ass'y MAIN Removal

3-3. Connector Diagrams

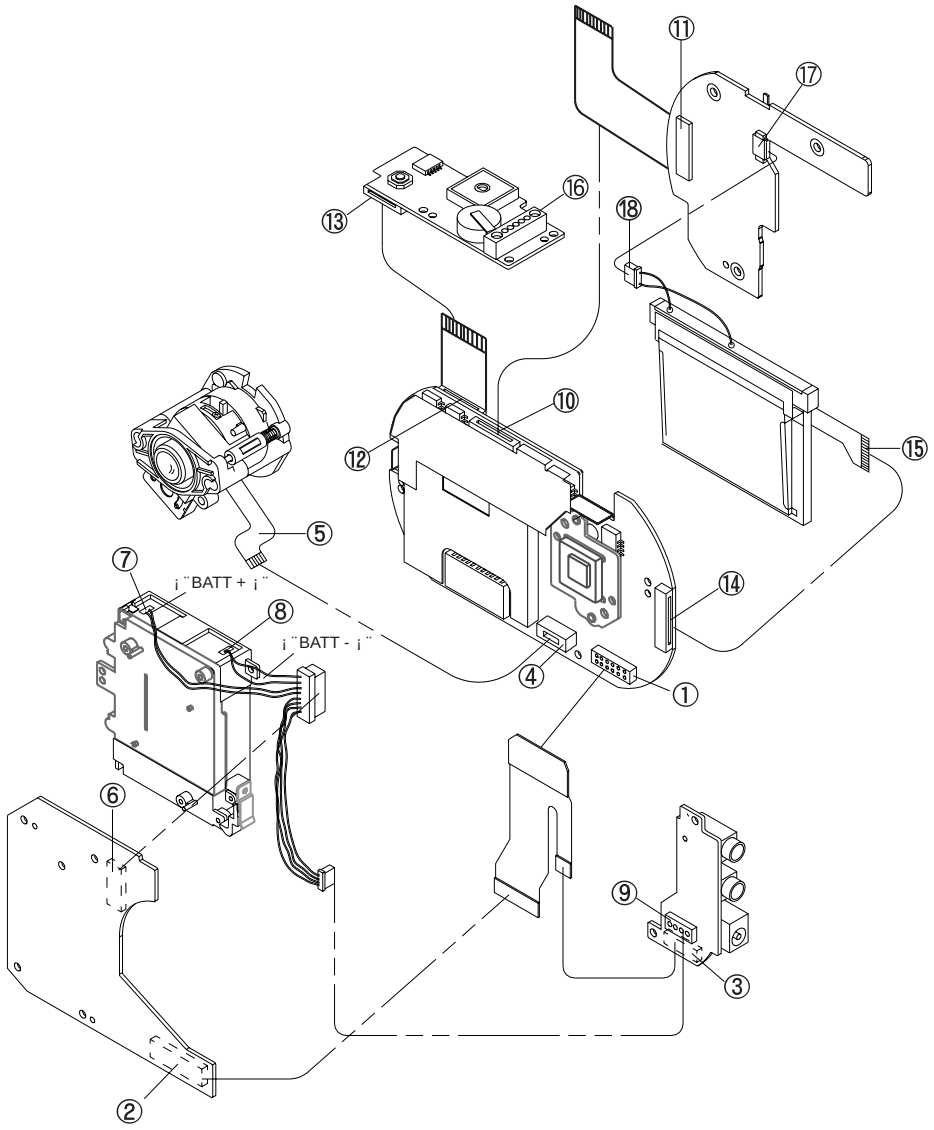


Fig. 3-9 Connector Diagrams

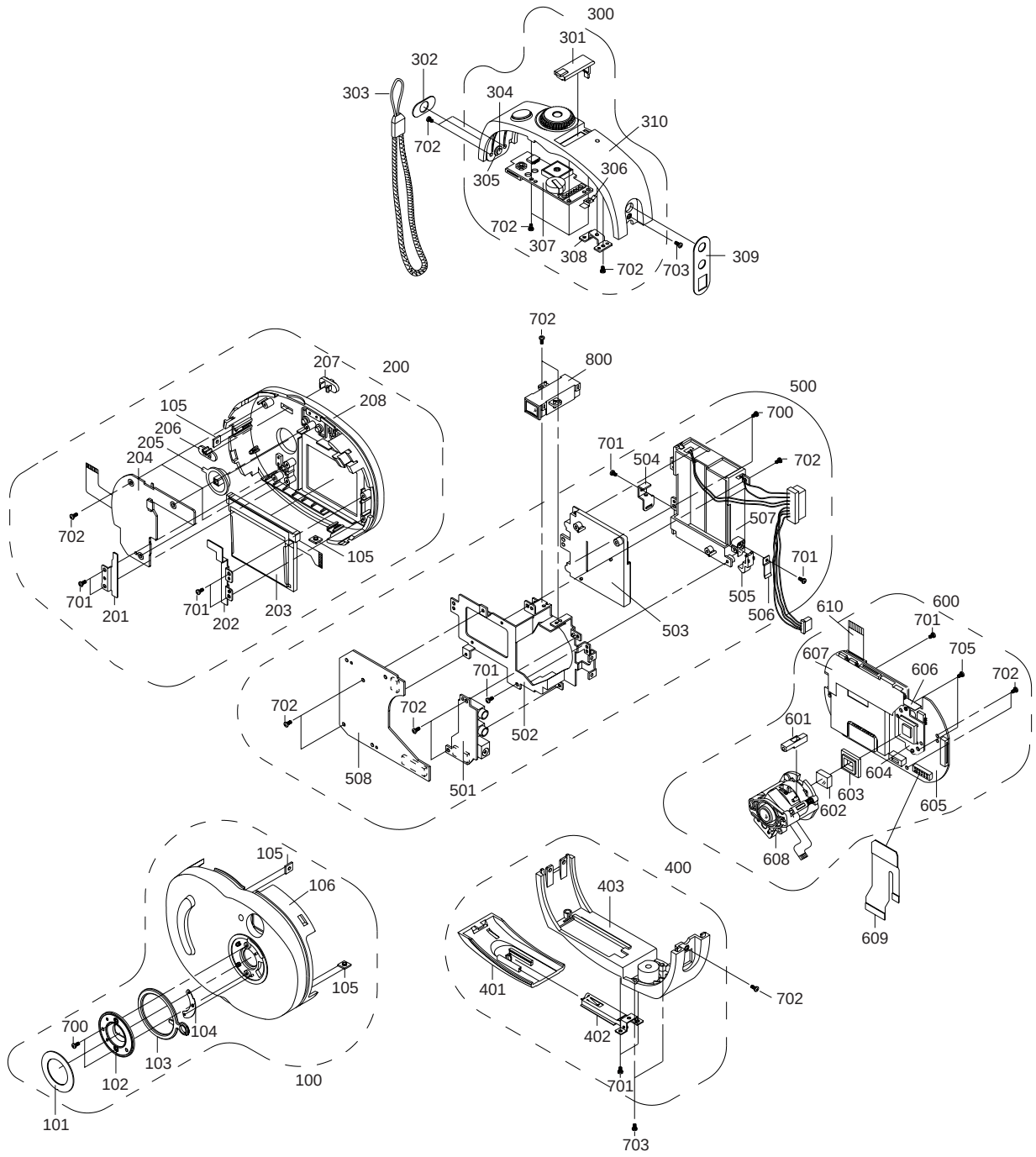
NO.	CONNECTOR	DIRECTION	CONNECTOR	NO.
①	CN02	MAIN BOARD ◄► DC-BOARD	CNP03	②
①	CN02	MAIN BOARD ◄► JACK BOARD	CNJ02	③
④	CN03	MAIN BOARD ◄► ASSY-LENS	LENS-FPC	⑤
⑩	CN05	MAIN BOARD ◄► REAR BOARD	CNB01	⑪
⑫	CN04	MAIN BOARD ◄► FUNT-BOARD	CNF01	⑬
⑭	CNL01	MAIN BOARD ◄► TFT-LCD	LCD-FPC	⑮
⑯	CNF03	FUNT-BOARD ◄► ASSY-STROBO	STROBO	
⑥	CNP02	DC-BOARD ◄► JACK-BOARD	CNJ03	⑨
⑥	CNP02	DC-BOARD ◄► BATTERY +, -	BATTERY	⑦⑧
⑥	CNB02	REAR-BOARD ◄► LCD-B/L	HBL	⑱

4. Exploded View and Parts List

4-1. Cabinet Assembly ---------- **4-2**

4-2. Parts List ---------- **4-3**

4-1 Cabinet Assembly



Loc. No	New Part No	Description and Specification Remark	Remark
505	AD64-00139A	DOOR-LOCK;-,POM WHT,-,-,-,-,-,SDC-X80	
506	AD61-00176A	SPRING-DOOR BATT;-,SUS T=0.3,-,-,-,-,-,-	
507	AD61-00174A	HOLDER-BATT,R;-,ABS,-,-,-,SDC-X80	
508	AD97-01067A	ASSY-DC/DC BOARD;SDC-80,-,ASSY -DC/DC B	
600	AD97-01065A	ASSY-MAIN BOARD;SDC-80,-,ASSY -MAIN BOA	
601	AD66-30597A	LEVER-MACRO;-,ABS,HB,-,-,SDC-007	
602	AD29-00003A	FILTER-OLP;-,OG-BF458,O.L.P.F,-,-,TR	
603	AD73-00016A	RUBBER-CCD;SILICON,-,SDC-X80,-	
604	AD61-00175A	PLATE-CCD;-,AL PLATE T=0.8,-,-,SDC-X80	
605	AD99-40009U	ASSY-MAIN BOARD,c;SDC-X80,-,ASSY -MAIN B	
606	AD63-00122A	SHIELD-SUB;-,PBS T0.15,-,-,SDC-80	
607	AD97-01702A	ASSY-SHIELD CASE MAIN;SDC-80,-,-	
608	AD97-00315A	ASSY—DSC-LENS;SDC-007,ASSY,PANFOCUS	
609	AD97-01472A	ASSY-FPC MAIN;SDC-80,FPC MAIN,40*26*T0.6	
610	AD41-00097A	FFC—FUNC,22PIN;FLATCABLE,0.3,22,SDC-80	
700	6002-001094	SCREW-TAPPING;CH(0.5),+,B,M1.7,L3.5,NI P	
701	AC60-12128B	SCREW-TAPTITE;-,BH,-,TAP,1.7,4,-	
702	AD60-00014A	SCREW-MACHINE;-,-,-,-,-,-,-,-,WHT	
703	6001-001288	SCREW-MACHINE;CH(0.5),+,M1.7,L6.0,NI PLT	
704	AC60-10024A	SCREW-MACHINE;BH,+,M2,X3,FZW,FE,-,-,-	
705	AH60-10112A	SCREW-TAPTITE;PH,+,M2,L5,SN1,-,YEL	
800	AD97-01491A	ASSY-OVF-LENS;SDC-80,ASSY,-	

5. Adjustment

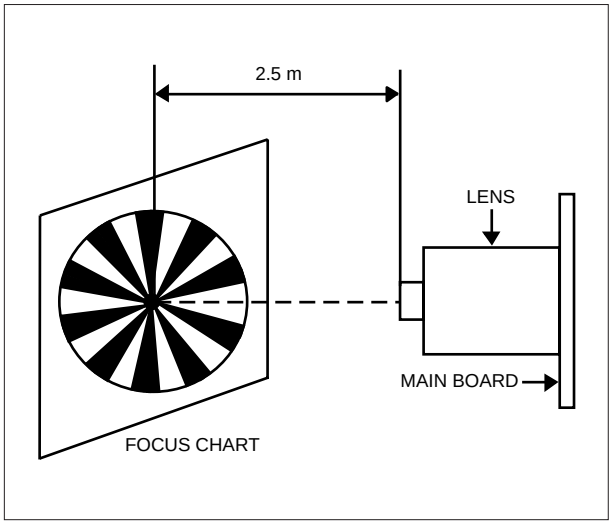
5-1. Camera Adjustment

5-1-1. Focus Adjustment

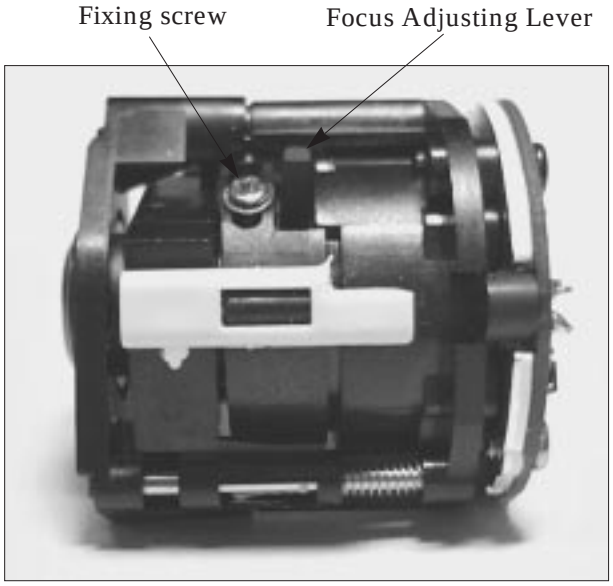
- **Adjusting in the Photo Mode**

1. Connect the camera and TV to video output cable. Turn on the power and set to the PC mode.
2. Aim the Main board at the focus chart placed 2.5 meters away and perpendicular to the center of the lens.
3. Loose a fixing screw lightly positioned in front of a lever in the state of pulling back macro lever toward °ƒ (counterclockwise at the front).
4. Turn the focus adjusting lever until a lever is in focus through the TV screen (not to move the macro lever).
5. Tighten the fixing screw when the lever is in focus.

* In the Photo mode, the state of the focus may be difficult to check. If it isn't, you can adjust in Resume mode or with program for adjustment after taking a photograph.



(Focus Adjustment)



(Lens & Lever Position)

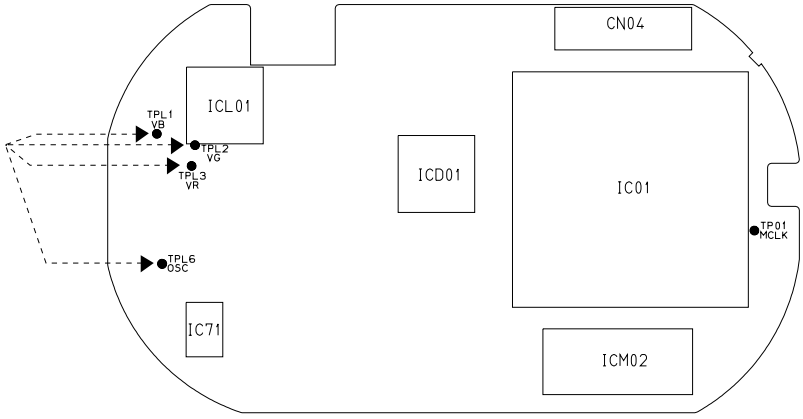
- **Adjusting with Program for Adjustment**

* If the program for adjustment is used, the 3 times magnified screen allows you exactly to adjust camera.

1. Connect the camera to TV and PC with video output cable and PC connecting cable. Turn on the power and set to the PC mode.
2. Aim the Main board at the focus chart placed 2.5 meters away and perpendicular to the center of the lens.
3. After running the program for adjustment on the PC to click the Focus Mode On button in the Camera Adjustment mode.
4. Repeat step 3 through 5 of "Adjusting in the Photo Mode".
5. Click the Focus Mode On button and finish the program for adjustment.

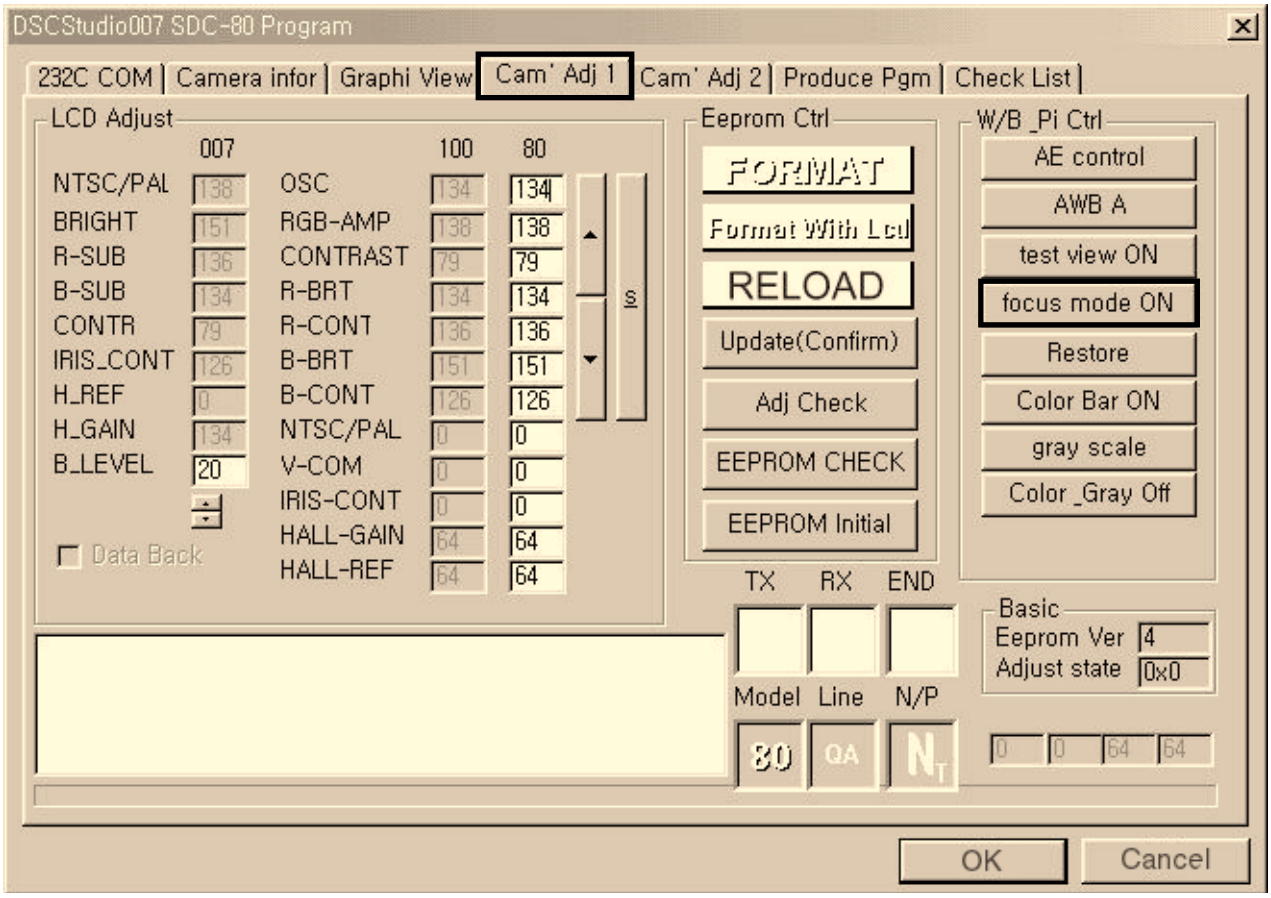
5-1-2. MCLK Adjustment

1. Turn on camera power and set to Photo mode.
2. One adjustment point is TP1-MCLK. Adjust using CT301.
3. Connect probe of frequency counter with TP1.
4. Using CT301, adjust it so that MCLK is **54.00MHz±00Hz.**



(External view of PCB :Main Board component side)

5-1-3. Program for Adjustment



5-2-3. Adjustment

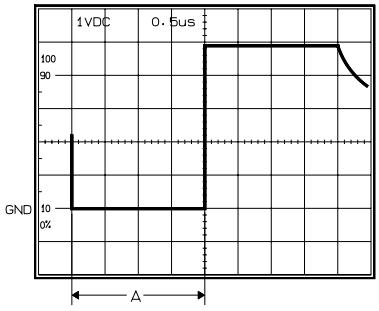
1. PD

1) TPL6-OSC & OSC mode

2) - Connect the probe of oscilloscope to TPL-OSC.
   - Press the UP/DOWN button or the number buttons so that the A is **2.0μs ± 0.2μs (when NTSC)**.

3) Using the UPDATE button, store the adjusted value in the EEPROM.

* Using OSC or CSHD, adjust the trigger.



PD wave form

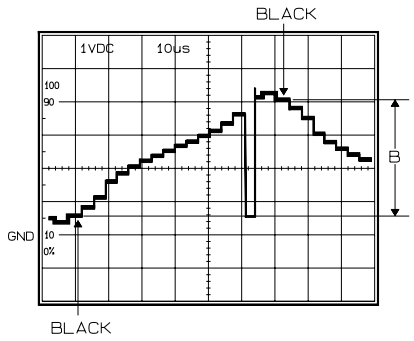
2. BRIGHTNESS

1) TPL2-VG & RGB-AMP mode

2) - Connect the probe of oscilloscope to TPL2-VG.
   - Press the UP/DOWN button or the number buttons so that the B level (between blacks) is **3.5 ± 0.1Vp-p.**

3) Using the UPDATE button, store the adjusted value in the EEPROM.

* Using FRP(or use No. 2 - 7 alignment wave form in common), adjust the trigger.



BRIGHT wave form

3. CONTRAST

1) TPL2-VG & CONTRAST mode

2) - Connect probe of oscilloscope to TPL2-VG.
   - Press the UP/DOWN button or the number buttons so that the C level (between black and white) is **3.0 ± 0.1Vp-p**.

3) Using the UPDATE button, store the adjusted value in the EEPROM.

4. R-BRIGHT

1) TP3-VR & R-BRT mode (Bright wave form)

2) - Connect the probe of oscilloscope to TP3-VR.
   - Press the UP/DOWN button or the number buttons so that the B level (between pedestals) is **3.5 ± 0.1Vp-p**.

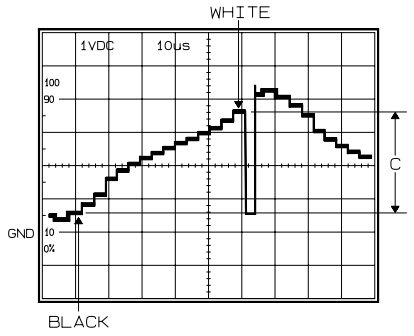
3) Using the UPDATE button, store the adjusted value in the EEPROM.

5. R-CONTRAST

1) TPL3-VR & R-CONT mode (Contrast wave form)

2) - Connect the probe of oscilloscope to TPL3-VR.
   - Press the UP/DOWN button or the number buttons so that the C level is **3.0 ± 0.1Vp-p**.

3) Using the UPDATE button, store the adjusted value in the EEPROM.



CONTRAST wave form

6. B-BRIGHT

1) TPL1-VB & B-BRT mode (Bright wave form)

2) - Connect the probe of oscilloscope to TPL1-VB.
   - Press the UP/DOWN button or the number buttons so that the B level is **3.5 ± 0.1Vp-p**.

3) Using the UPDATE button, store the adjusted value in the EEPROM.

MEMO

6. Electrical Parts List

Loc. No	Part No	Desc & Spec	Remark
	AD97-01065A	**ASSY-MAIN BOARD**	
B03	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B04	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B05	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B06	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B07	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B08	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B09	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B10	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B11	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B12	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B13	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B14	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B15	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B17	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B19	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	REV.03change
B20	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B21	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B23	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
B25	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
BD41	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
BD42	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
BD61	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
C01	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C02	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C03	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C04	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
C05	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
C051	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
C06	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C07	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C08	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C09	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
C10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C15	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
C16	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
C17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C18	2404-000151	C-TA,CHIP;1uF,20%,16V,-,TP,3216,-	
C19	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C211	2203-000041	C-CERAMIC,CHIP;0.01nF,0.25pF,50V,NP0,TP,	
C3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C31	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C32	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C33	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C34	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
C41	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C42	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C43	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C44	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C47	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C48	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C51	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C52	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C53	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C54	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C60	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C61	2203-001598	C-CERAMIC,CHIP;2200nF,+80-20%,16V,Y5V,TP	
C64	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
C65	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
C66	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
C67	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C68	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C69	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
C71	2203-000357	C-CERAMIC,CHIP;0.15nF,5%,50V,NP0,TP,1608	
C72	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C73	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C74	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
C75	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,	
C81	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	

Loc. No	Part No	Desc & Spec	Remark
C82	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C83	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C84	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
C98	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
CD01	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD02	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CD04	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CD05	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD06	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD07	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD08	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
CD09	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
CD10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD13	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD16	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD21	2203-000041	C-CERAMIC,CHIP;0.01nF,0.25pF,50V,NP0,TP,	
CD22	2203-000041	C-CERAMIC,CHIP;0.01nF,0.25pF,50V,NP0,TP,	
CD23	2203-000041	C-CERAMIC,CHIP;0.01nF,0.25pF,50V,NP0,TP,	
CD24	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CD25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD26	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD27	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CD28	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD31	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD32	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CD33	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD34	2404-000238	C-TA,CHIP;4.7uF,20%,20V,-,TP,3528,-	
CD35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD36	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD37	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD38	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
CD39	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CD40	2404-000156	C-TA,CHIP;1uF,20%,35V,-,TP,3528,1.4mm	
CD42	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL01	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL02	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL03	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL04	2203-000888	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,1608	
CL05	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL06	2404-000151	C-TA,CHIP;1uF,20%,16V,-,TP,3216,-	
CL07	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL08	2203-001140	C-CERAMIC,CHIP;68nF,10%,16V,X7R,TP,1608,	
CL09	2203-001140	C-CERAMIC,CHIP;68nF,10%,16V,X7R,TP,1608,	
CL10	2203-001140	C-CERAMIC,CHIP;68nF,10%,16V,X7R,TP,1608,	
CL11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL12	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CL13	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CL16	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL17	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL18	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL19	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL20	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL21	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL22	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL23	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL24	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL25	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL26	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL51	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL52	2404-000151	C-TA,CHIP;1uF,20%,16V,-,TP,3216,-	
CL53	2203-002605	C-CERAMIC,CHIP;0.008nF,0.25pF,50V,NP0,TP	
CL54	2404-000151	C-TA,CHIP;1uF,20%,16V,-,TP,3216,-	
CL55	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL56	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	

Loc. No	Part No	Desc & Spec	Remark
L71	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LD01	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LD02	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LD21	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LD31	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LD32	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL01	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL02	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL61	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL62	2703-000425	INDUCTOR-SMD;27uH,5%,2x2.5x1.8mm	
LL81	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL82	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL83	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LM01	2703-000402	INDUCTOR-SMD;1uH,20%,3.2x2.5x2.2mm	
LM02	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
Q01	0501-000218	TR-SMALL SIGNAL;2SC4081,NPN,200mW,UMT,TP	
Q02	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
Q41	0504-001035	TR-DIGITAL;KRA301,PNP,100mW,4.7K/4.7Kohm	
Q42	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
Q61	0504-001035	TR-DIGITAL;KRA301,PNP,100mW,4.7K/4.7Kohm	
Q62	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
Q99	0501-000218	TR-SMALL SIGNAL;2SC4081,NPN,200mW,UMT,TP	
QD31	0505-000180	FET-SILICON;2SK1070PIETR,-,150MW,SOT	
QL01	0501-000218	TR-SMALL SIGNAL;2SC4081,NPN,200mW,UMT,TP	
QL71	0501-000218	TR-SMALL SIGNAL;2SC4081,NPN,200mW,UMT,TP	
QL81	0501-000218	TR-SMALL SIGNAL;2SC4081,NPN,200mW,UMT,TP	
QL82	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
R01	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R02	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R03	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	
R04	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
R05	2007-000643	R-CHIP;270ohm,5%,1/16W,DA,TP,1608	
R06	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	
R07	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
R08	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	

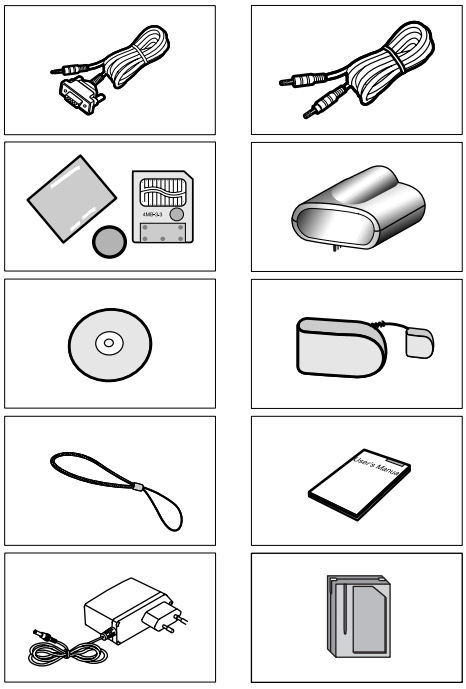
Loc. No	Part No	Desc & Spec	Remark
R09	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
R10	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
R11	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
R13	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
R14	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R15	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R16	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R161	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
R17	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R18	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R19	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	
R20	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
R21	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
R22	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
R23	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	
R25	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
R26	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
R29	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R30	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
R32	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R33	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
R34	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R35	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R36	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R37	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R38	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R39	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R40	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R51	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
R52	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
R53	2007-000063	R-CHIP;150Kohm,1%,1/16W,DA,TP,1608	
R54	2007-001125	R-CHIP;68Kohm,1%,1/16W,DA,TP,1608	
R55	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R56	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
R61	2007-000402	R-CHIP;150ohm,5%,1/16W,DA,TP,1608	

Loc. No	Part No	Desc & Spec	Remark
RL28	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL29	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL30	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL31	2007-000616	R-CHIP;24Kohm,5%,1/16W,DA,TP,1608	
RL32	2007-000098	R-CHIP;56Kohm,5%,1/16W,DA,TP,1608	
RL33	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL34	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608	
RL35	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
RL36	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL37	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
RL38	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608	
RL39	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
RL40	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RL41	2007-000655	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608	
RL52	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL53	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RL54	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RL55	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
RL56	2007-000772	R-CHIP;33Kohm,1%,1/16W,DA,TP,1608	
RL57	2007-000063	R-CHIP;150Kohm,1%,1/16W,DA,TP,1608	
RL58	2007-001161	R-CHIP;75Kohm,5%,1/16W,DA,TP,1608	
RL61	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL62	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
RL63	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608	
RL64	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL65	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RL66	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608	
RL67	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	
RL68	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL69	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RL70	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
RL71	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
RL72	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL73	2007-000118	R-CHIP;390ohm,5%,1/16W,DA,TP,1608	
RL74	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	
RL75	2007-000450	R-CHIP;180ohm,5%,1/16W,DA,TP,1608	
RL81	2007-000125	R-CHIP;3.9Kohm,5%,1/16W,DA,TP,1608	
RL82	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
RL83	2007-000130	R-CHIP;39Kohm,5%,1/16W,DA,TP,1608	
RL84	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RL85	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RL91	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RM01	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
RM03	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RM04	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RM05	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RM06	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
RM08	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RM09	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
X01	2801-003487	CRYSTAL-SMD;27MHz,30ppm,28-ABL,8.3pF,300	
X02	2801-003696	CRYSTAL-SMD;16.5888MHz,50ppm,28-ABL,12pF	
FFUN	AD41-00097A	FFC--FUNC,22PIN;FLATCABLE,0.3,22,SDC-80	
ICD32	0605-001022	CCD;COLOR,DIP,16P,450MIL,800K,4.65	
LENS	AD97-00315A	ASSY--DSC-LENS;SDC-007,ASSY,PANFOCUS	
OLPF	AD29-00003A	FILTER-OLP;-,OG-BF458,O.L.P.F,-,-,TR	
FMAIN	AD97-01472A	ASSY-FPC MAIN;SDC-80,FPC MAIN,40*26*T0.6	
	AD97-01069A	**ASSY-REAR BOARD;SDC-80,-,ASSY -REAR BOA**	
CB01	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CB02	2203-001408	C-CERAMIC,CHIP;0.27nF,5%,50V,NP0,TP,1608	
CB03	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
CB04	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
CB041	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CB05	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CB051	2203-002376	C-CERAMIC,CHIP;2200nF,+80-20%,50V,Y5V,TP	
CB06	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CB07	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CB08	2301-001108	C-FILM,CHIP;22nF,5%,50V,TP,3.2x2.5x1.4,3	
CB09	2203-005040	C-CERAMIC,CHIP;0.012nF,5%,3kV,NP0,TP,452	
CB10	2203-005040	C-CERAMIC,CHIP;0.012nF,5%,3kV,NP0,TP,452	
CB11	2404-000167	C-TA,CHIP;2.2uF,20%,16V,-,TP,3216,-	

Loc. No	Part No	Desc & Spec	Remark
CP19	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CP21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP211	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP212	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CP22	2203-001071	C-CERAMIC,CHIP;0.056nF,5%,50V,NP0,TP,160	
CP23	2203-002376	C-CERAMIC,CHIP;2200nF,+80-20%,50V,Y5V,TP	
CP27	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CP28	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CP29	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP30	2404-000238	C-TA,CHIP;4.7uF,20%,20V,-,TP,3528,-	
CP301	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP302	2404-000238	C-TA,CHIP;4.7uF,20%,20V,-,TP,3528,-	
CP39	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP41	2203-001408	C-CERAMIC,CHIP;0.27nF,5%,50V,NP0,TP,1608	
CP42	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
CP43	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
CP44	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
CP441	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CP442	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP45	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP46	2203-002376	C-CERAMIC,CHIP;2200nF,+80-20%,50V,Y5V,TP	
CP461	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CP47	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
CP48	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP49	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
CP50	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CP51	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
CP52	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
DC01	0404-000150	DIODE-SCHOTTKY;EC10QS04,40V,1A,SMD,TP	
DC02	0404-000150	DIODE-SCHOTTKY;EC10QS04,40V,1A,SMD,TP	
DC03	0404-000150	DIODE-SCHOTTKY;EC10QS04,40V,1A,SMD,TP	
DC11	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DP03	0404-000144	DIODE-SCHOTTKY;SB01-05CP,50V,100mA,SOT-2	
DP04	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DP05	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DP06	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DP22	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DP23	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
ICC01	1203-001840	IC-BATTERY;3801,SOP,16P,150MIL,PLASTIC,-	
ICP01	1203-001844	IC-DC/DC CONVERTER;M62212GP,SSOP,8P,150M	
ICP21	1203-001844	IC-DC/DC CONVERTER;M62212GP,SSOP,8P,150M	
ICP41	1203-001844	IC-DC/DC CONVERTER;M62212GP,SSOP,8P,150M	
LC02	2703-001871	INDUCTOR-SMD;10UH,20%,6X6X2.8MM	
LED94	0601-001226	LED;CHIP,RED,1.2x0.8mm,660nm	
LP01	2703-000402	INDUCTOR-SMD;1uH,20%,3.2x2.5x2.2mm	
LP02	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP03	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP04	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP05	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP21	2703-000402	INDUCTOR-SMD;1uH,20%,3.2x2.5x2.2mm	
LP23	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP24	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LP42	2703-000414	INDUCTOR-SMD;22uH,20%,7x7x3.2mm	
LP43	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
LP44	2703-000402	INDUCTOR-SMD;1uH,20%,3.2x2.5x2.2mm	
LP441	2703-000402	INDUCTOR-SMD;1uH,20%,3.2x2.5x2.2mm	
PP01	3601-001155	FUSE-SURFACE MOUNT;24V,4A,FAST-ACTING,CE	
PP02	3601-001155	FUSE-SURFACE MOUNT;24V,4A,FAST-ACTING,CE	
Q94	0504-000211	TR-DIGITAL;DTC143TU,NPN,200MW,4.7K,SC-70	
QC01	0501-000682	TR-SMALL SIGNAL;FP102,PNP,-600MW,PCP4,TP	
QC02	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
QC04	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
QC05	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
QC06	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
QC07	0502-001054	TR-POWER;KSD1621,NPN,500mW,SOT-89,TP,14	
QP01	0504-001035	TR-DIGITAL;KRA301,PNP,100mW,4.7K/4.7Kohm	
QP011	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
QP02	0502-001054	TR-POWER;KSD1621,NPN,500mW,SOT-89,TP,14	
QP21	0504-001035	TR-DIGITAL;KRA301,PNP,100mW,4.7K/4.7Kohm	
QP211	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	

Loc. No	Part No	Desc & Spec	Remark
QF34	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
QF35	0504-001036	TR-DIGITAL;KRA304,PNP,100mW,47K/47Kohm,S	
RF01	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	
RF011	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
RF02	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
RF04	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	
RF05	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
RF10	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF11	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF12	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF13	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF14	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF15	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF16	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF17	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF18	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RF31	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RF32	2007-000643	R-CHIP;270ohm,5%,1/16W,DA,TP,1608	
RF33	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
RF35	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
SWF01	3406-001021	SWITCH-ROTARY;12VDC,100mA,SP9T,NON	
SWF02	3404-000143	SWITCH-TACT;12V,50mA,260g,5.2x5.2x1.5mm,	
CF05	2401-003178	C-EDL;100000uF,-,5.5V,-,TP,10.5x5.5m	
CNF03	AD61-00290A	HOLDER-CONNECTOR BOTTOM;-,PBT,-,-,-,SDC-	
	AD97-01068A	**ASSY-JACK BOARD;SDC-80,-,ASSY -JACK BOA**	
BJ01	AC27-72001A	CHIP-FERRITE BEAD;HF50ACB,322513-T,-,-,-	
BJ02	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
BJ03	3301-001051	CORE-FERRITE BEAD;AC,1.6X0.8X0.8mm,-,-	
CJ01	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	
CNJ02	3708-001236	CONNECTOR-FPC/FC/PIC;10P,0.5mm,SMD-A,SN	
CNJ03	3711-000456	CONNECTOR-HEADER;3WALL,4P,1R,1.25mm,SMD-	
DJ01	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DJ02	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DJ03	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DJ04	0403-001126	DIODE-ZENER;UDZ18D,18V,10%,200mW,UMD2,TP	
DJ05	0403-001126	DIODE-ZENER;UDZ18D,18V,10%,200mW,UMD2,TP	
DJ06	0403-001126	DIODE-ZENER;UDZ18D,18V,10%,200mW,UMD2,TP	
DJ07	0403-001126	DIODE-ZENER;UDZ18D,18V,10%,200mW,UMD2,TP	
DJ08	0404-000150	DIODE-SCHOTTKY;EC10QS04,40V,1A,SMD,TP	
RJ01	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
JJ01	3722-000465	JACK-DC POWER;1P/1C,PI4.4,AG,BLK,-	
JJ02	AD37-20001A	JACK-PHONE;HSJ1456-012220,AU	
JJ03	AD37-20001A	JACK-PHONE;HSJ1456-012220,AU	

No	Loc. No	Part No	Desc & Spec
1	RS232	AD39-42001C	CABLE-RS232C;9P,F,1000mm,PLUG 3.5•',20m
2	VIDEO	AD39-40200B	CABLE-RCA;DP,RCA(MONO),1000mm,AWG26,BLK,
3	SSFDC	1107-001052	IC-FLASH MEMORY;4,4Mx8BIT,PAD,22P,37mm,5
4	STB	AD97-01182A	ASSY-STROBO;STB-80,STROBO,3.3V
5	DISC	AD46-00005A	DISC-OPTICAL;120mm,PHOTODIO,CD,SDC-80
6		AD69-00104A	BAG-SOFT-CASE;SC-C1,POLYESTER+NEOPRENE,-
7		AD69-00105A	BAG-STROBO-CASE;SC-C2,POLYESTER+NEOPRENE
8		AD66-00036A	BELT-HAND GRIP;-,PE,-,-,-,-,SDC-80
9	KIB	AD68-00178A	MANUAL-USER;SDC-80,-,148,210,DOMESTIC,AR
10	ADAP	AD44-00024A	ADAPTOR;110/220VAC,50/60HZ,5.0VDC,1.0A
11	BPACK	AD43-00017A	BATTERY PACK;IMP340848-1,3.8V,1000MA,SB-



7. PCB Diagrams

7-1. Main PCB (Rev.02) ---------- **7-2**

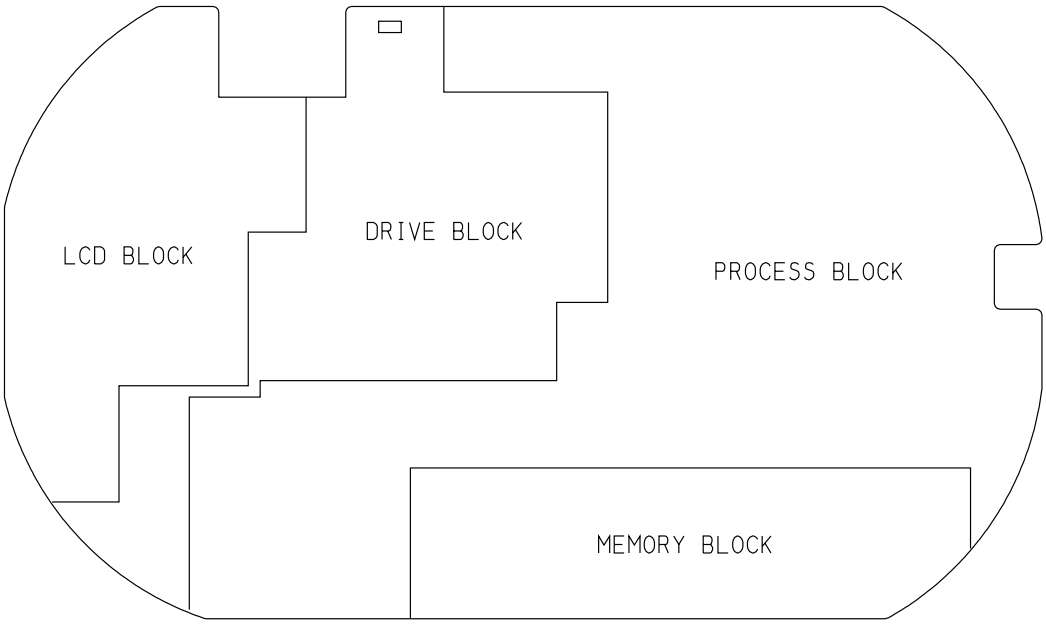
7-2. Main PCB (Rev.03) ---------- **7-4**

7-3. B/L PCB ---------- **7-6**

7-4. DC PCB ---------- **7-8**

7-5. Function PCB ---------- **7-10**

7-6. Jack PCB ---------- **7-11**

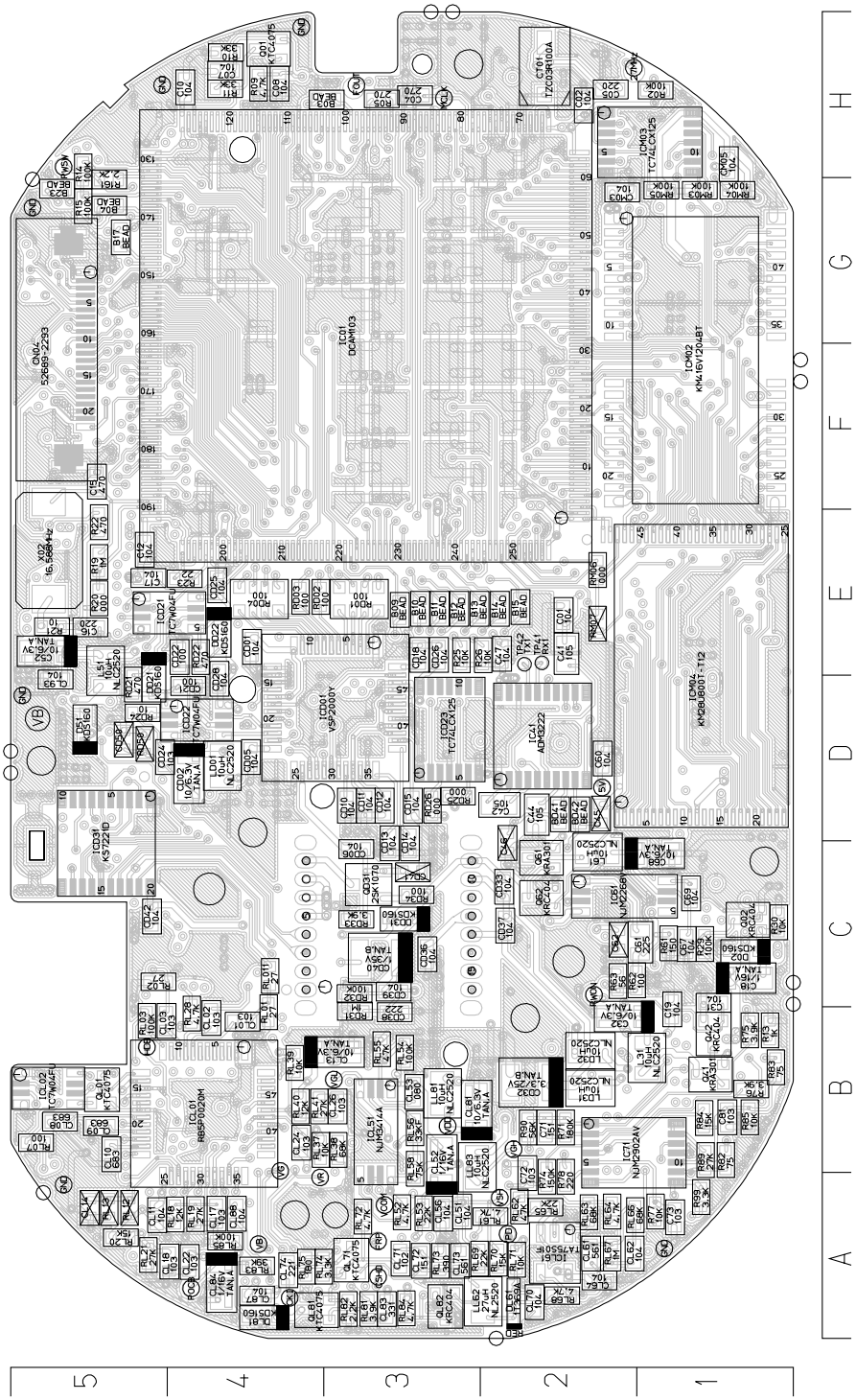


< Main PCB >

7-1. Main PCB (Rev.02)

Conductor Side

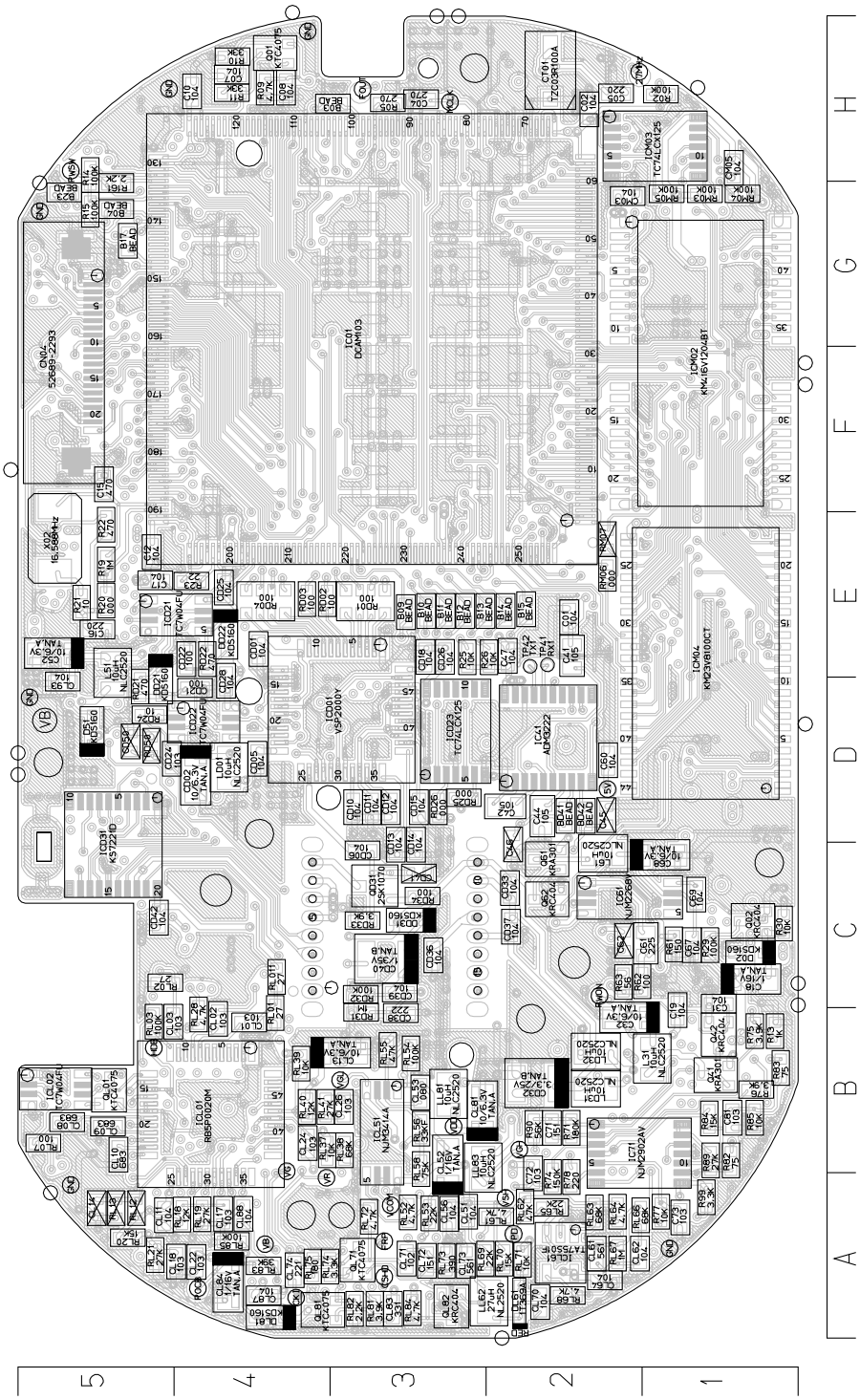
LOC.NO	X-Y
CN04	G-5
CT01	H-2
IC01	G-3
IC41	D-2
IC71	B-2
IC91	C-2
ICD01	D-3
ICD21	E-5
ICD22	D-4
ICD23	D-3
ICD31	D-5
ICL01	B-4
ICL02	B-5
ICL51	B-3
ICL61	A-2
ICM02	F-1
ICM03	H-1
ICM04	D-1
Q01	H-4
Q02	C-1
Q41	B-1
Q42	B-1
Q61	C-2
Q62	C-2
QD31	C-3
QL01	B-5
QL71	A-3
QL81	A-4
QL82	A-3
X02	E-5



7-2. Main PCB (Rev.03)

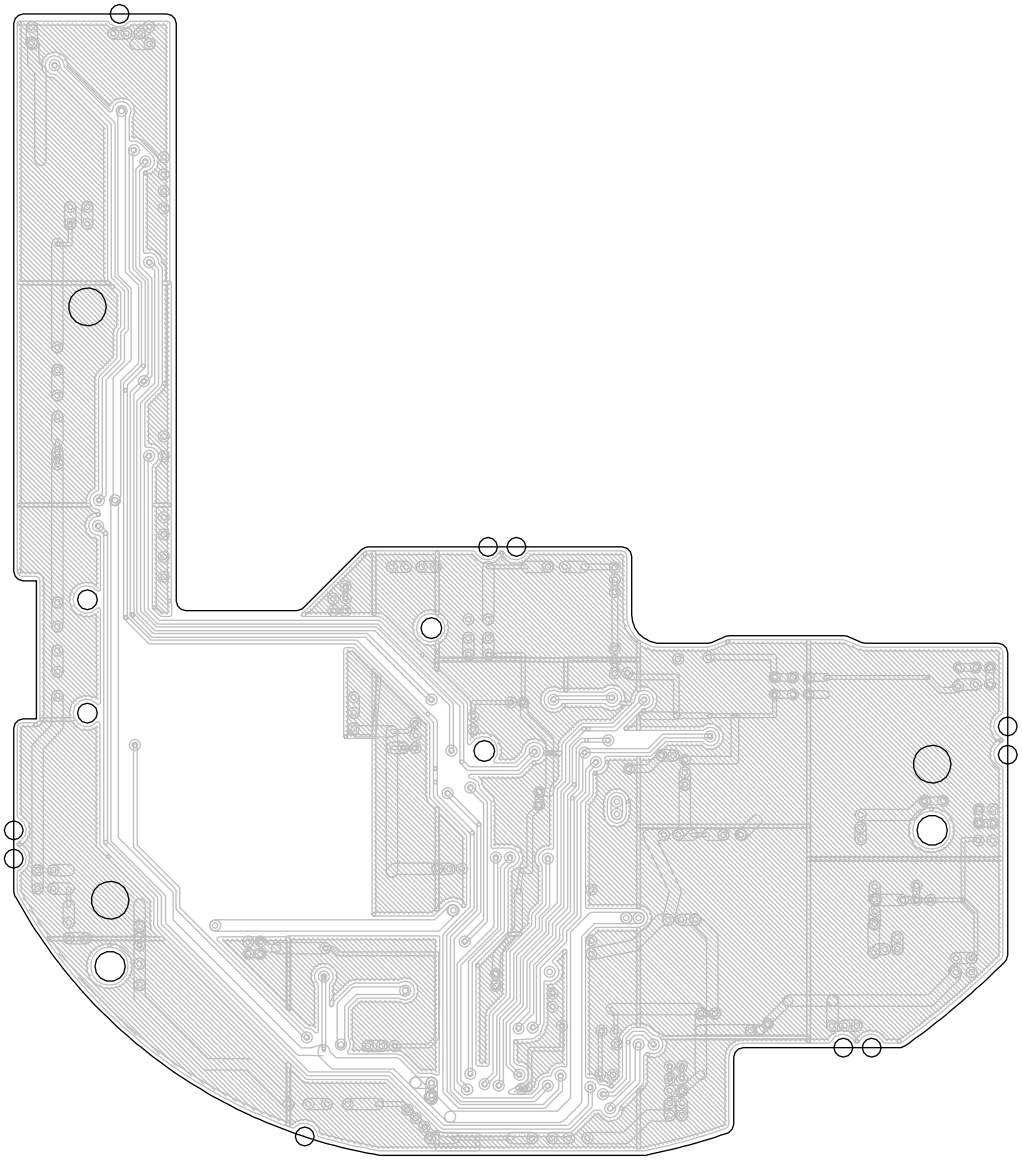
Conductor Side

LOC.NO	X-Y
CN04	G-5
CT01	H-2
IC01	G-3
IC41	D-2
IC71	B-2
IC91	C-2
ICD01	D-3
ICD21	E-5
ICD22	D-4
ICD23	D-3
ICD31	D-5
ICL01	B-4
ICL02	B-5
ICL51	B-3
ICL61	A-2
ICM02	F-1
ICM03	H-1
ICM04	D-1
Q01	H-4
Q02	C-1
Q41	B-1
Q42	B-1
Q61	C-2
Q62	C-2
QD31	C-3
QL01	B-5
QL71	A-3
QL81	A-4
QL82	A-3
X02	E-5



7-3. B/L PCB

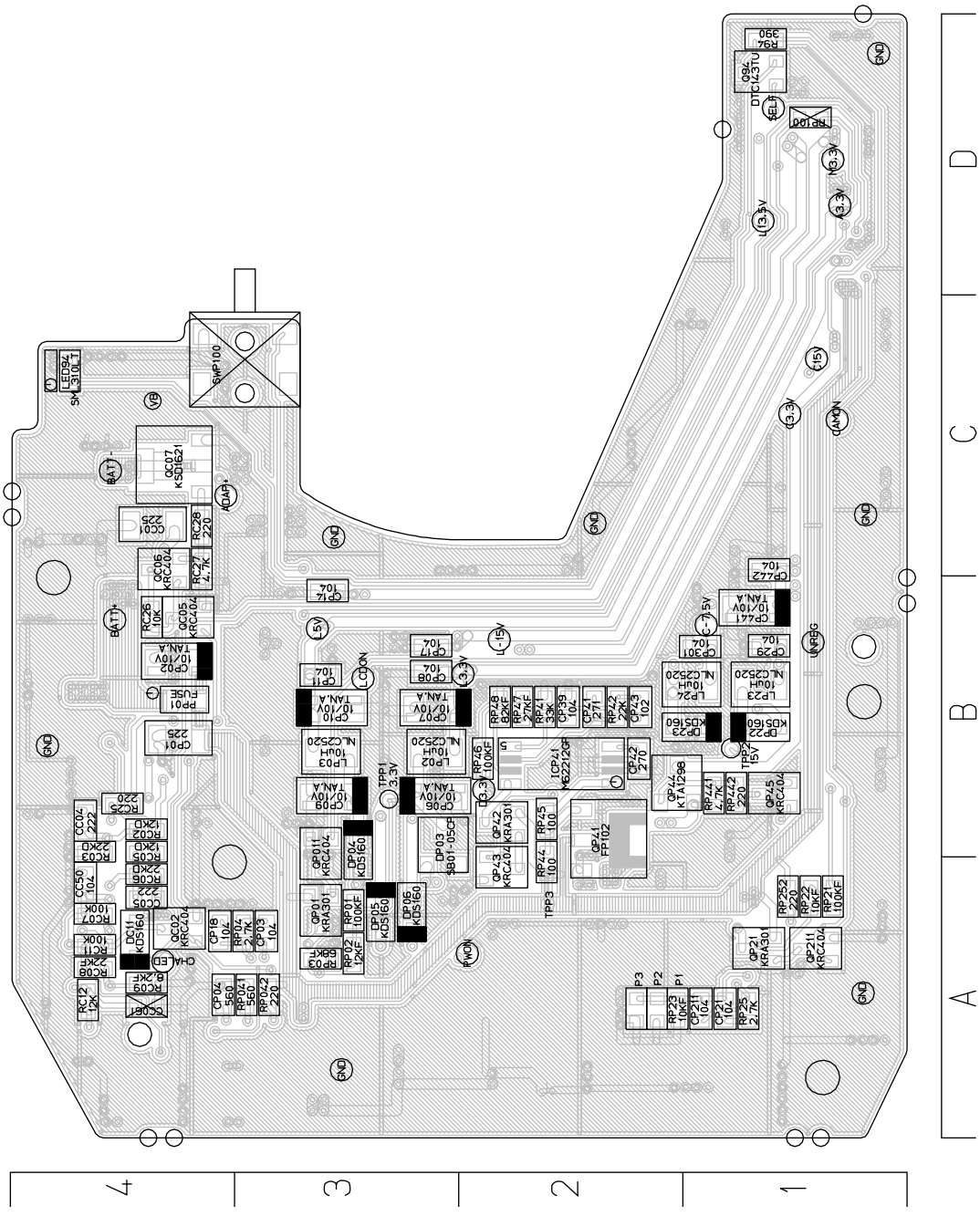
Conductor Side



7-4. DC PCB

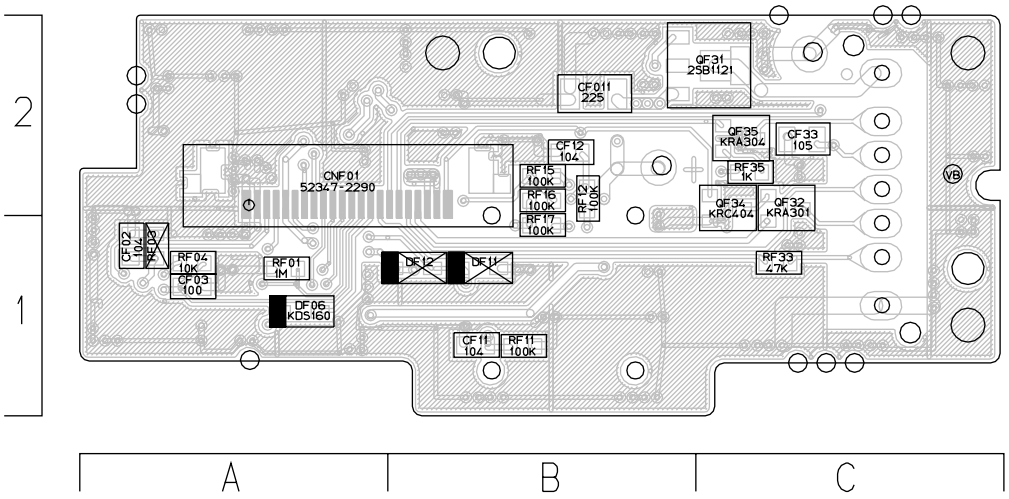
Conductor Side

ICP41	B-2
QC02	A-4
QC05	B-4
QC06	C-4
QC07	C-4
QP01	A-3
QP011	B-3
QP21	A-1
QP211	A-1
QP41	B-2
QP42	B-2
QP43	A-2
QP44	B-2
QP45	B-1
Q94	D-1
SWP100	C-3



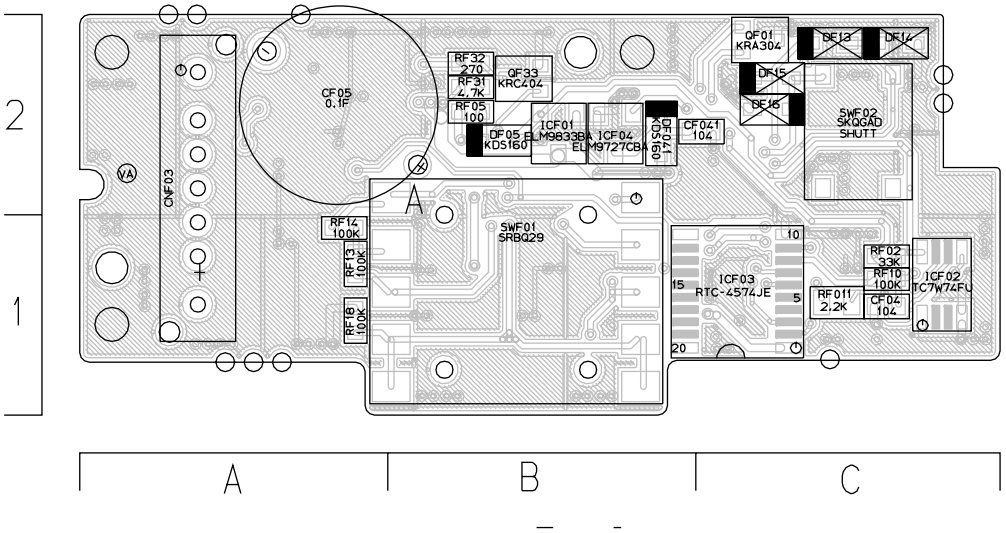
7-5. Function PCB

Conductor Side



LOC.NO	X-Y
CNF01	A-2
QF31	C-2
QF32	C-2
QF34	C-2
QF35	C-2

Component Side



X-Y	LOC.NO
A-2	CNF03
B-2	ICF01
C-1	ICF02
C-1	ICF03
B-2	ICF04
C-2	QF01
B-2	QF33
B-1	SWF01
C-2	SWF02

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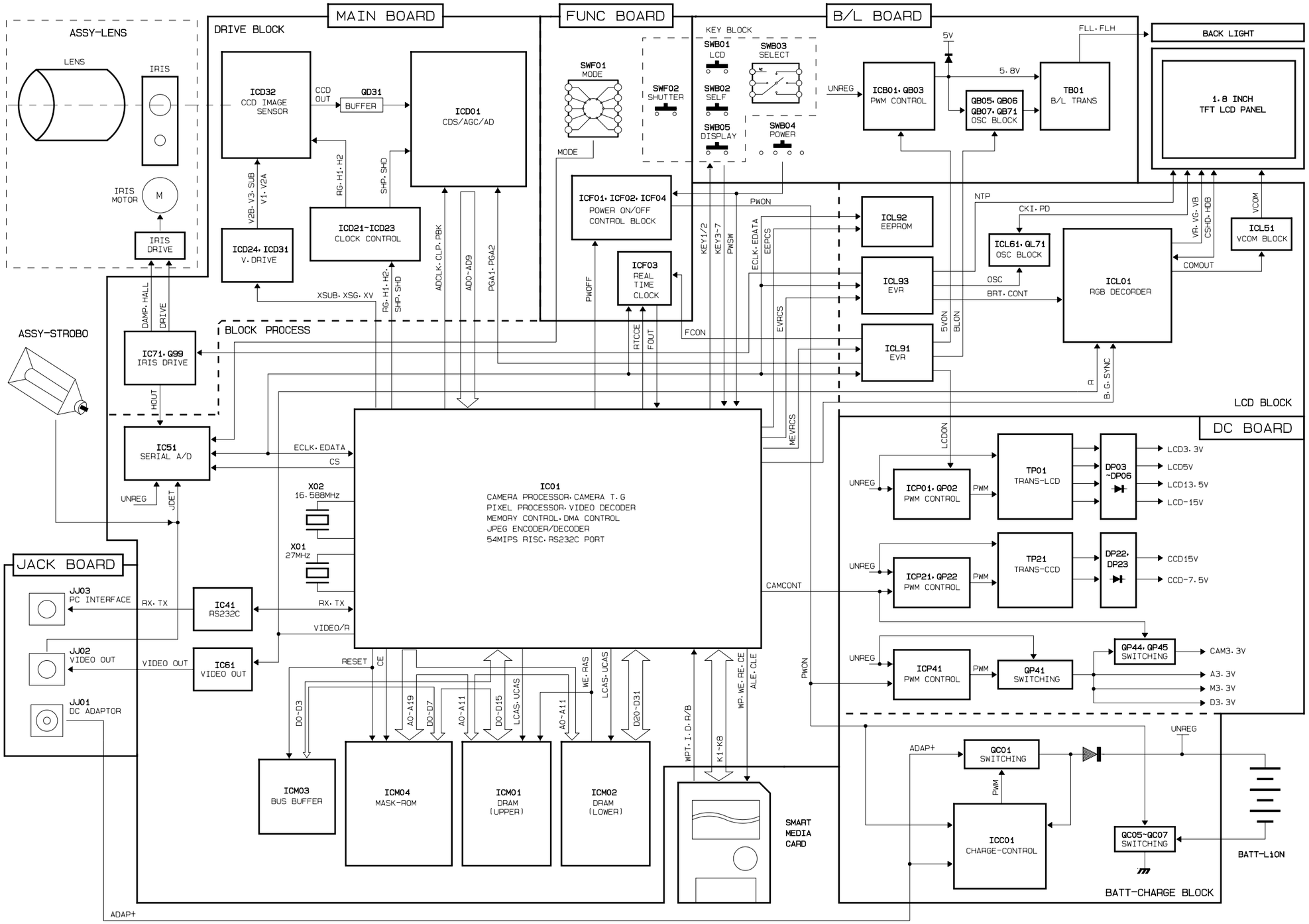
8. Wiring Diagram



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9. Schematic Diagrams

9-1. CCD Block ---------- 9-2

9-2. Drive Block ---------- 9-3

9-3. Process Block ---------- 9-4

9-4. Function Block ---------- 9-5

9-5. LCD Block ---------- 9-6

9-6. JACK Block ---------- 9-7

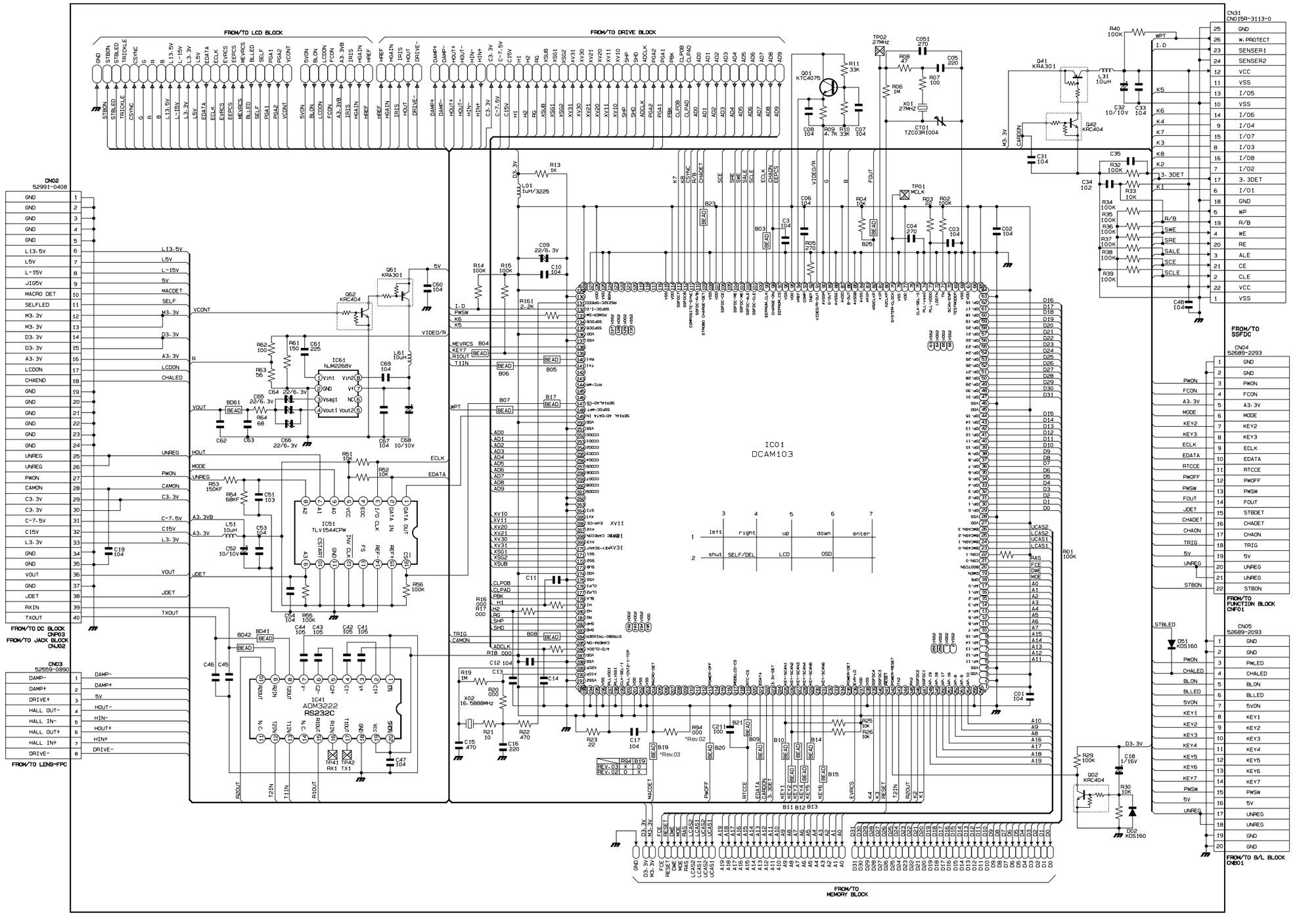
9-7. CCD Block ---------- 9-8

9-8. Drive Block ---------- 9-9

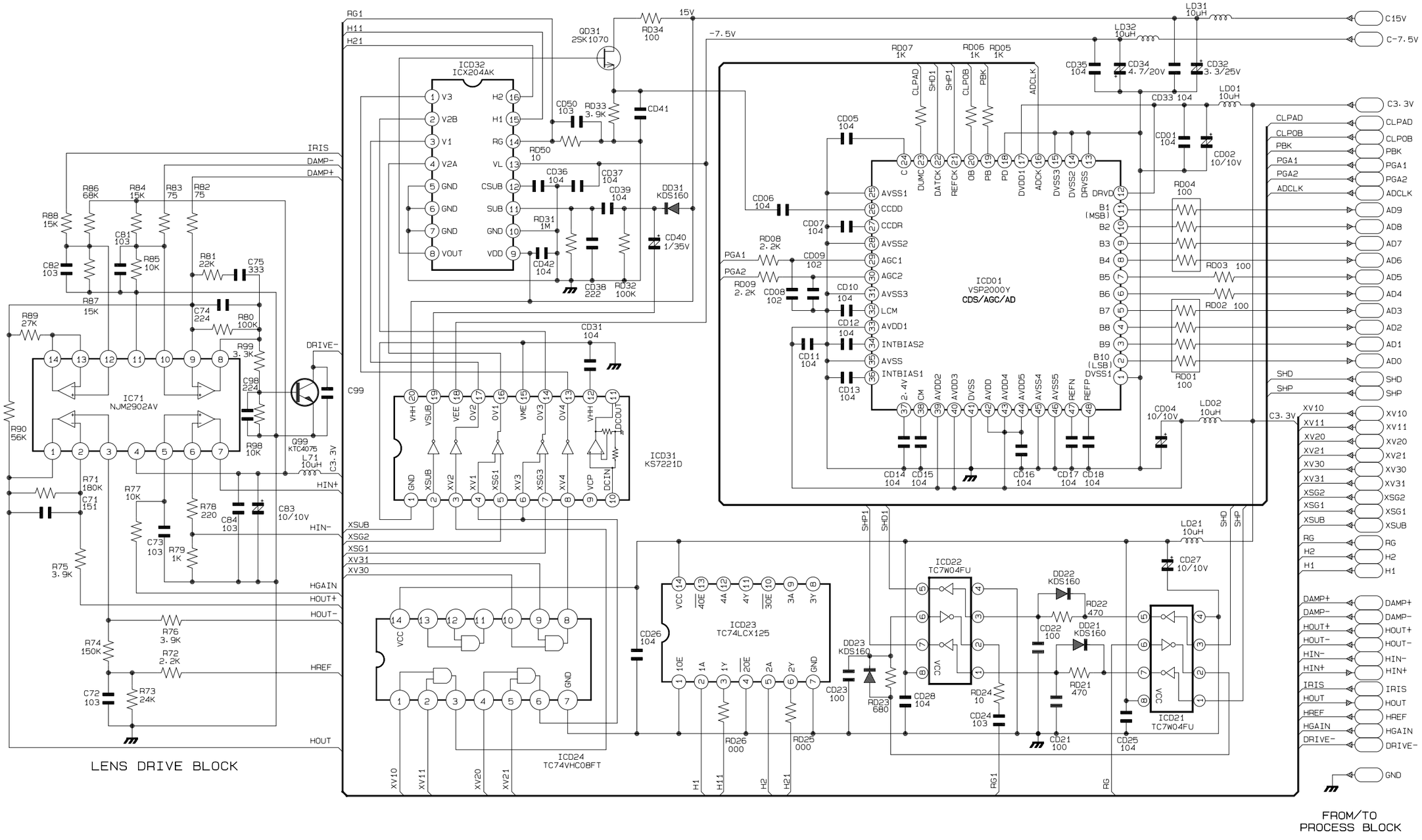
9-9. Process Block ---------- 9-10

9-10. Function Block ---------- 9-11

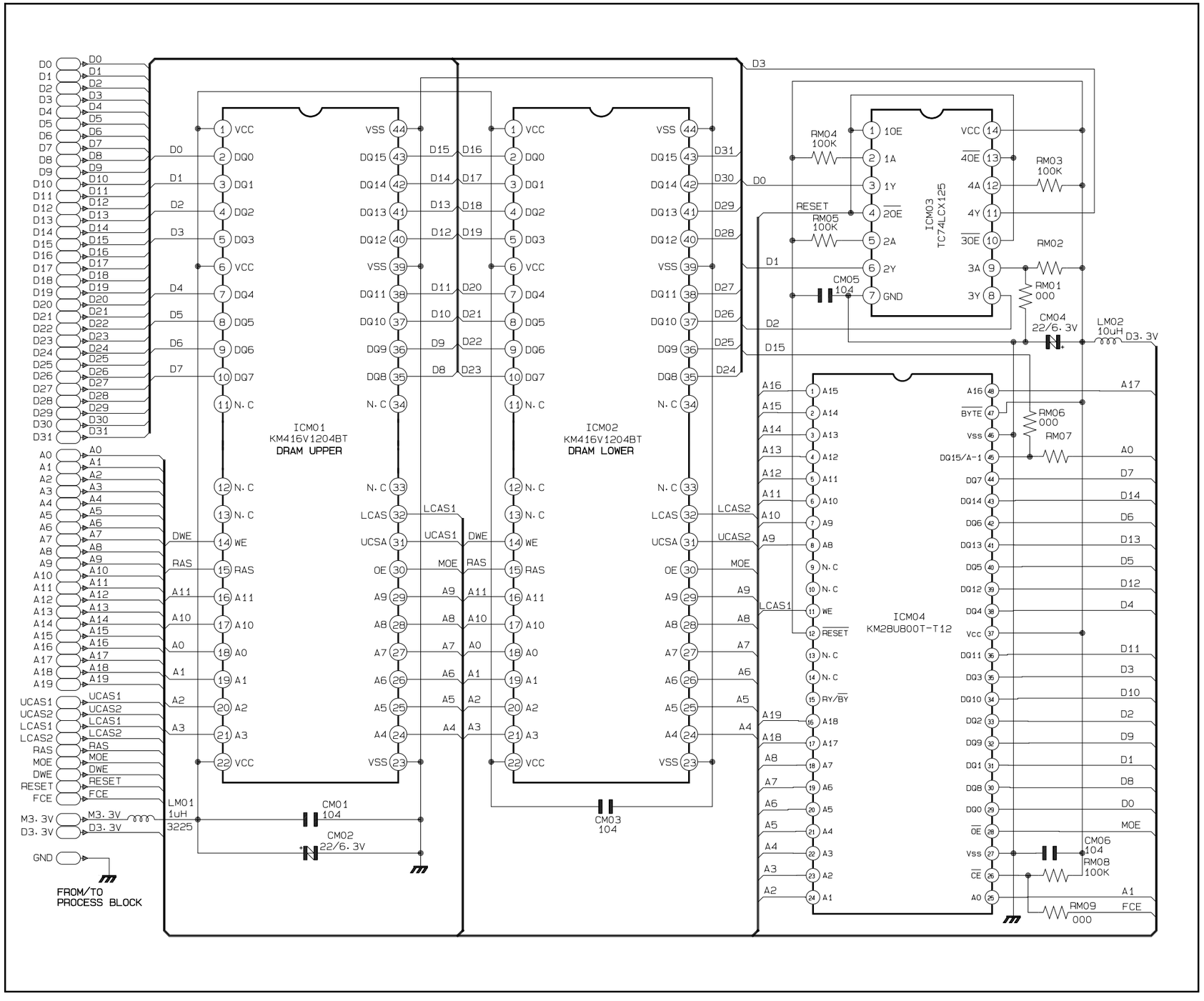
9-1. Process Block (Rev.02,03)



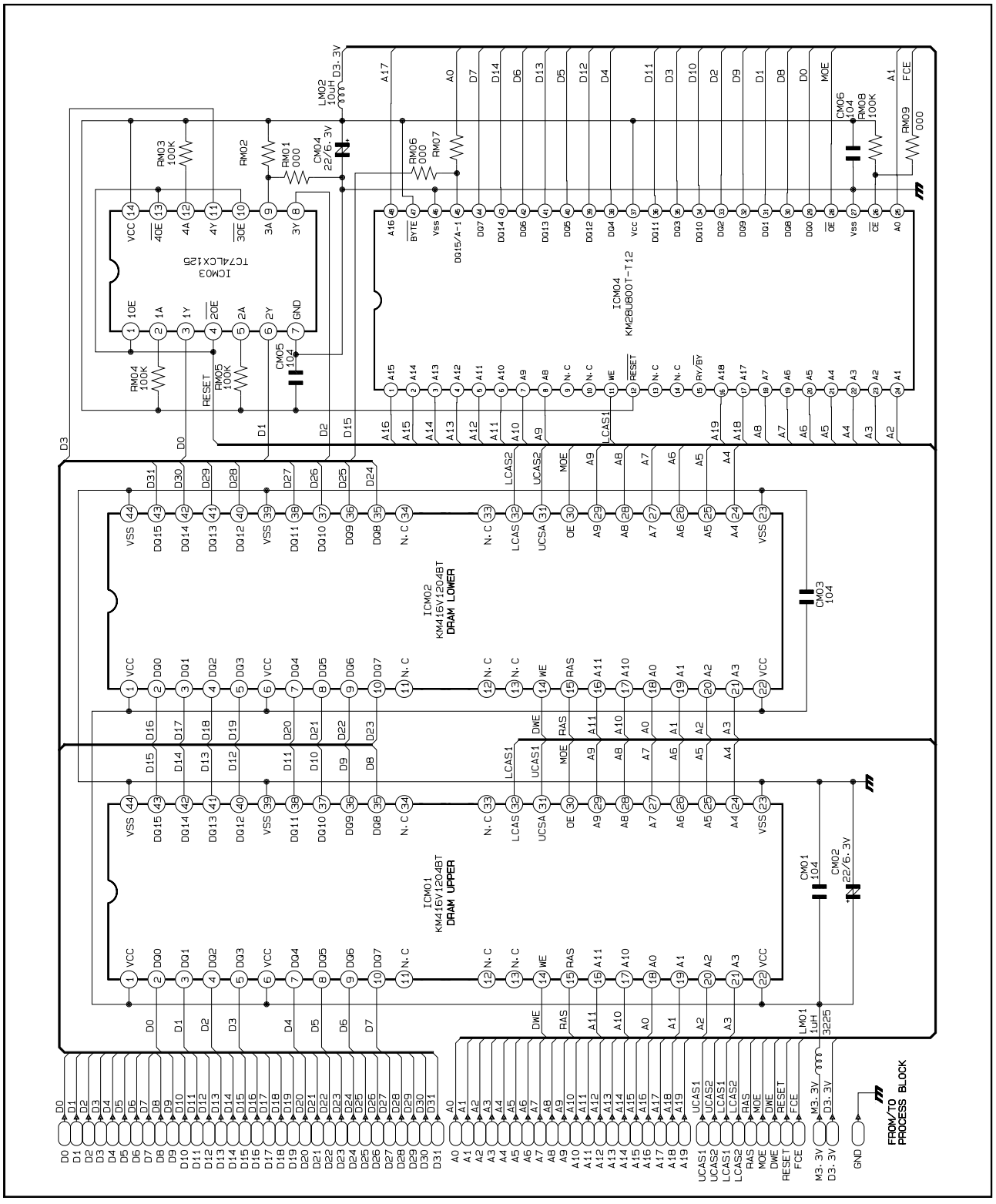
9-2. Drive Block (Rev.02,03)



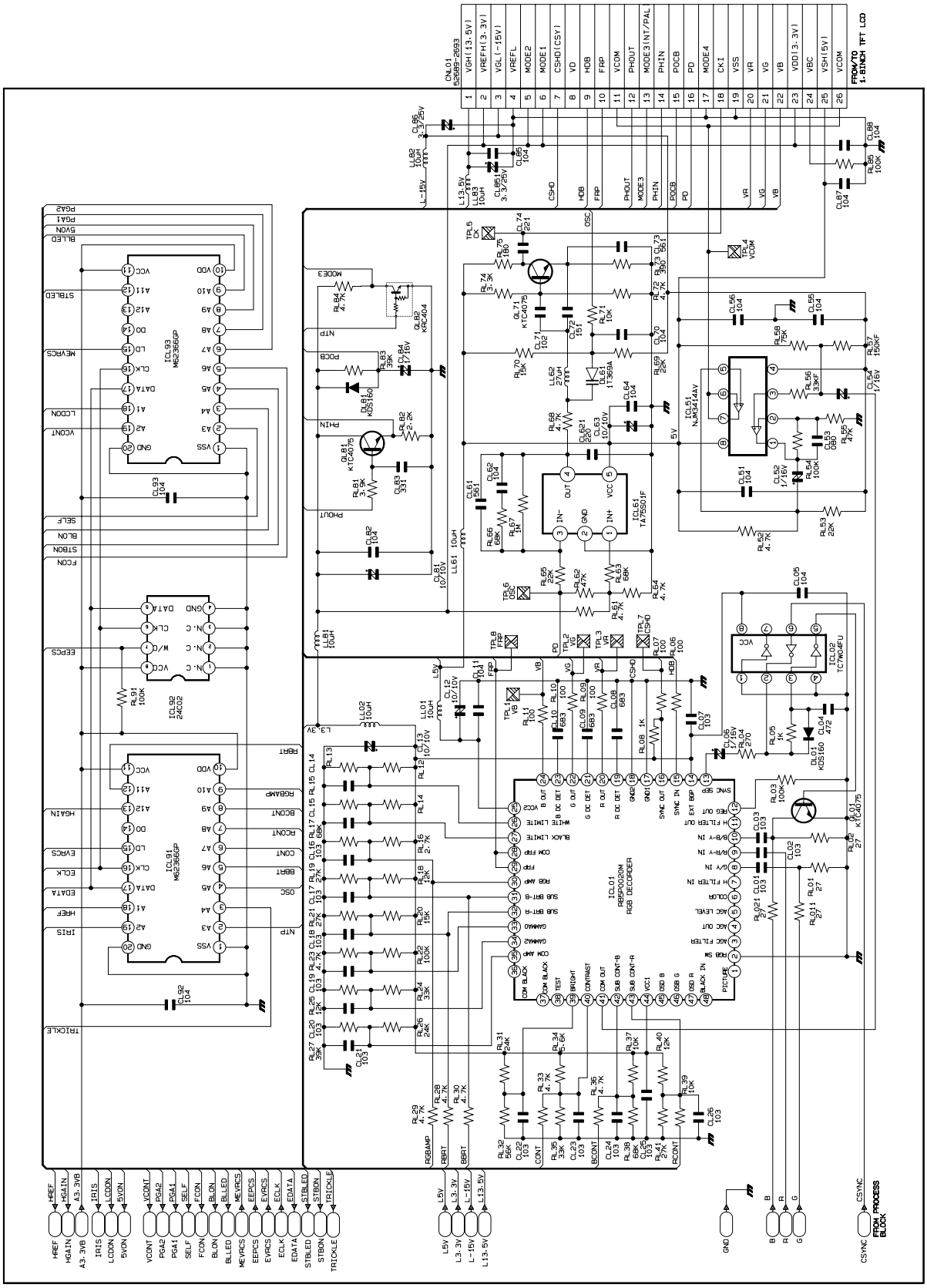
9-3. Mevory Block (Rev.02)



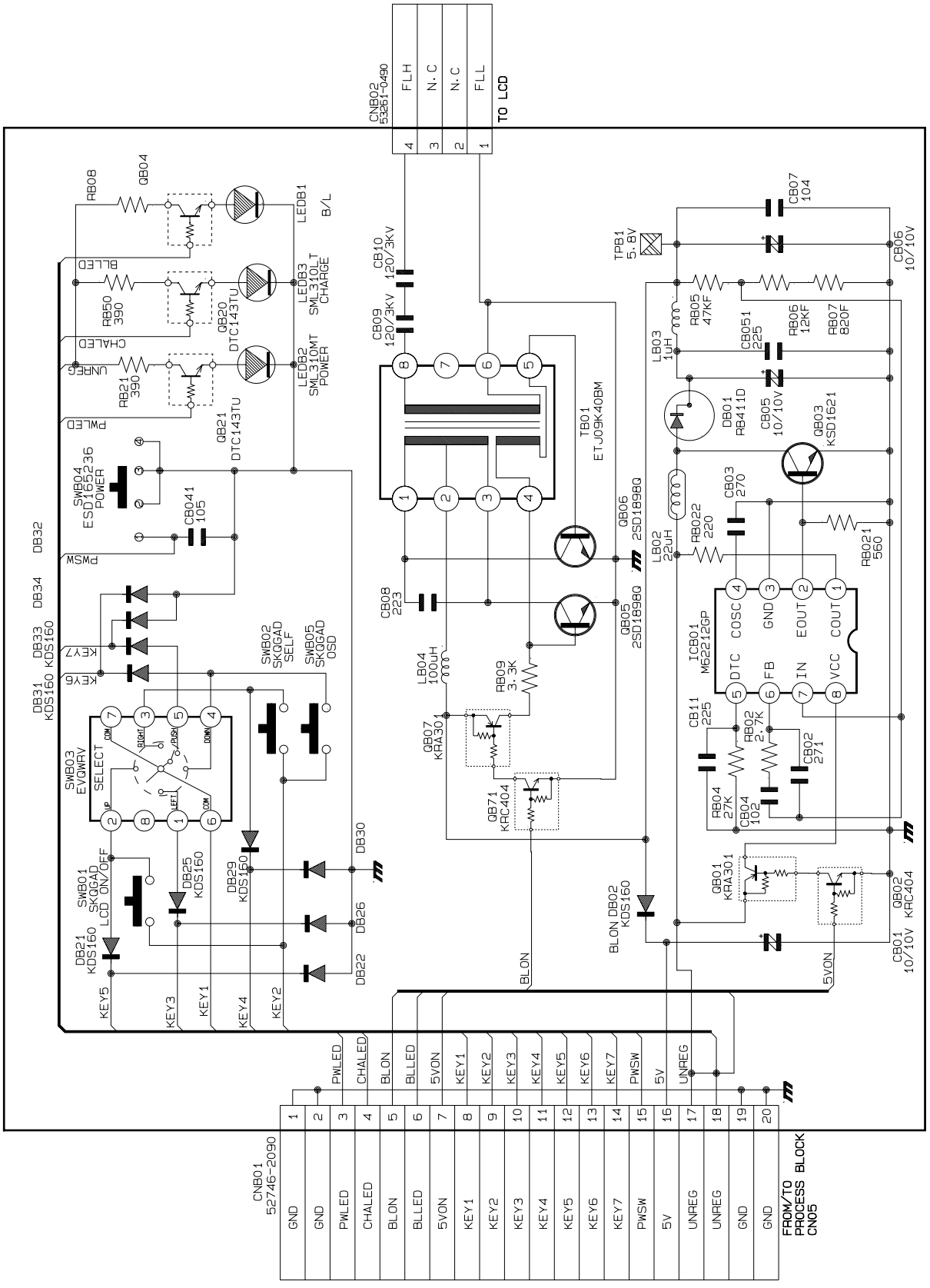
9-4. Memory Block (Rev.03)



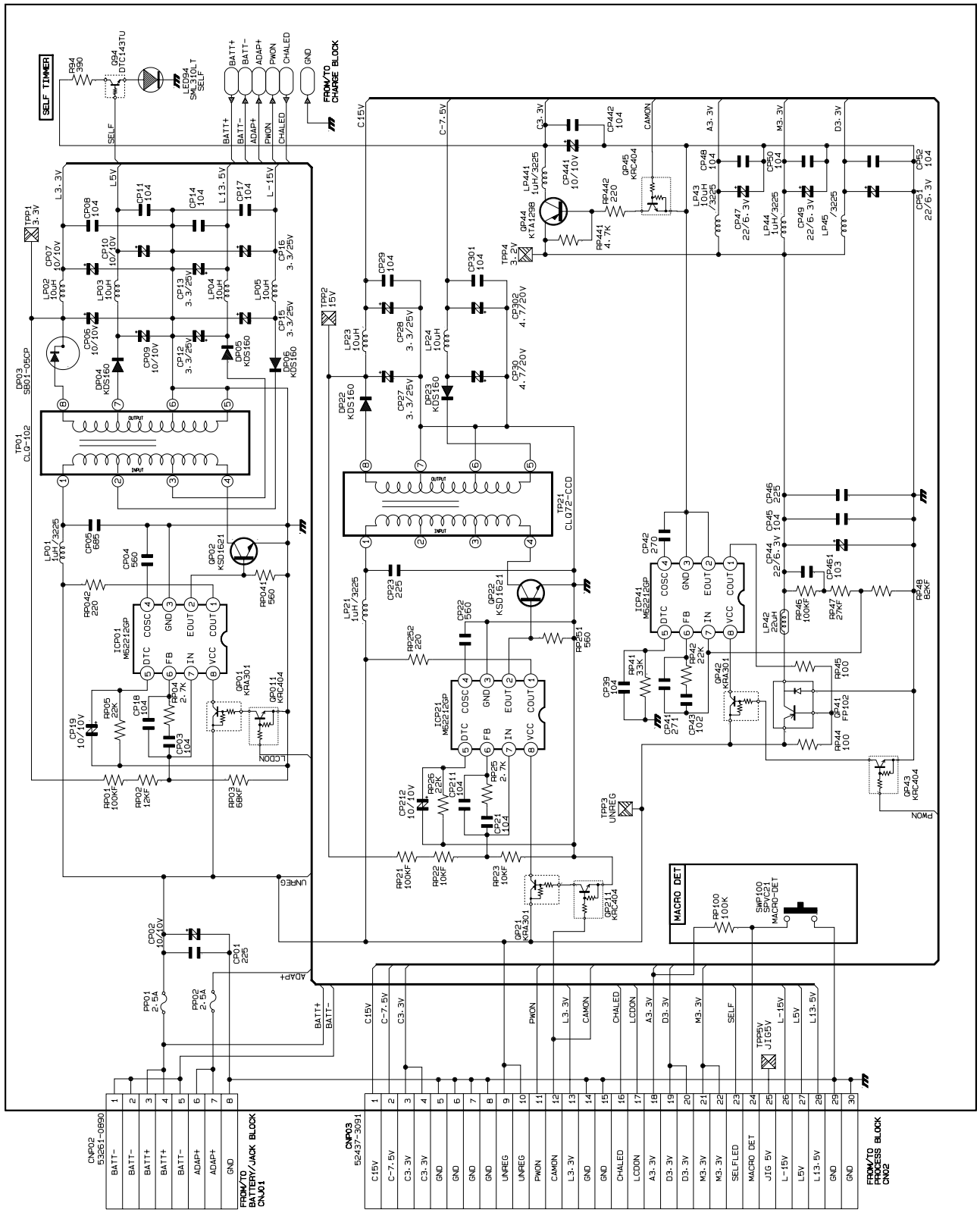
9-5. LCD Block (Rev.02,03)



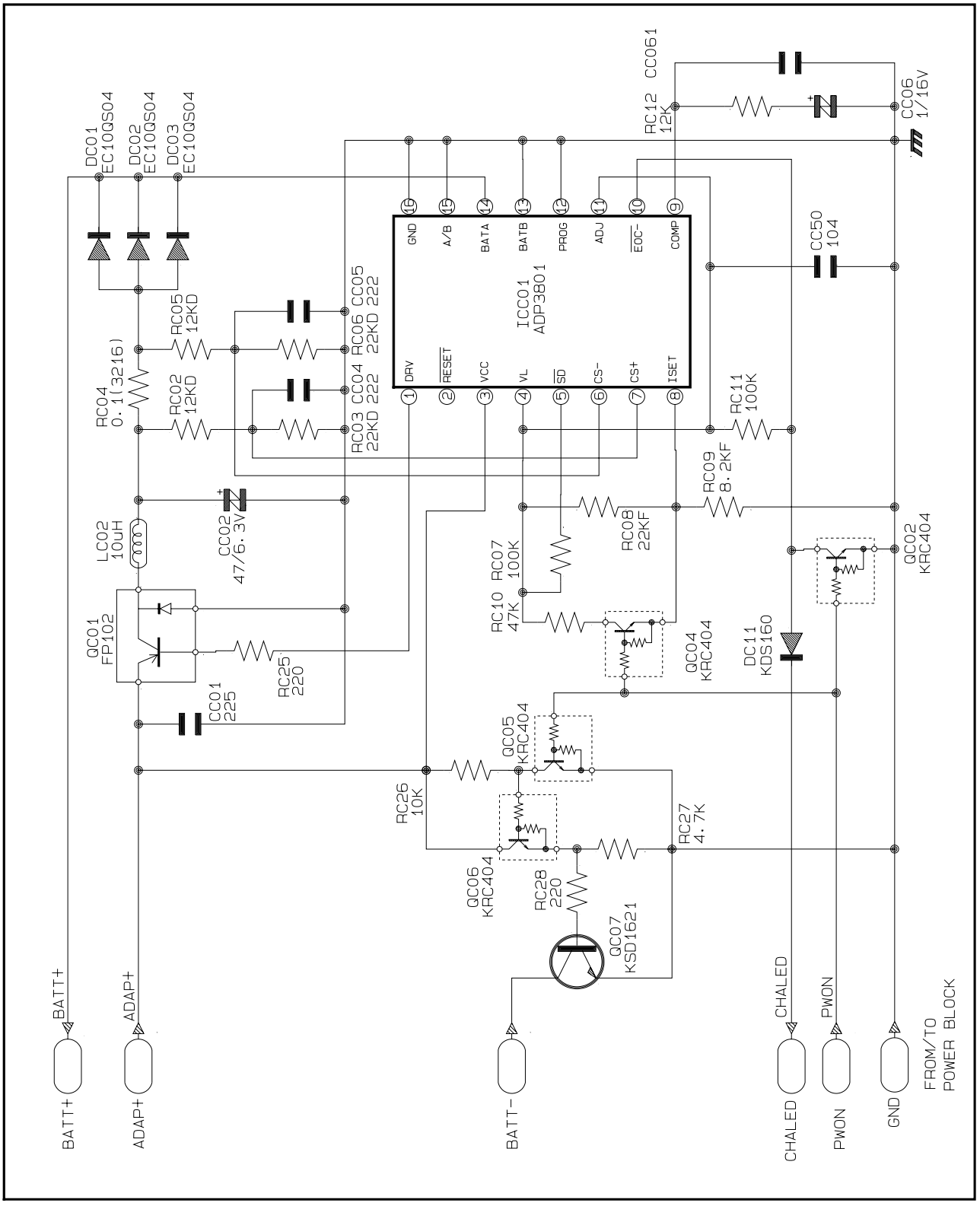
9-6. Back Light Block (Rev.02,03)



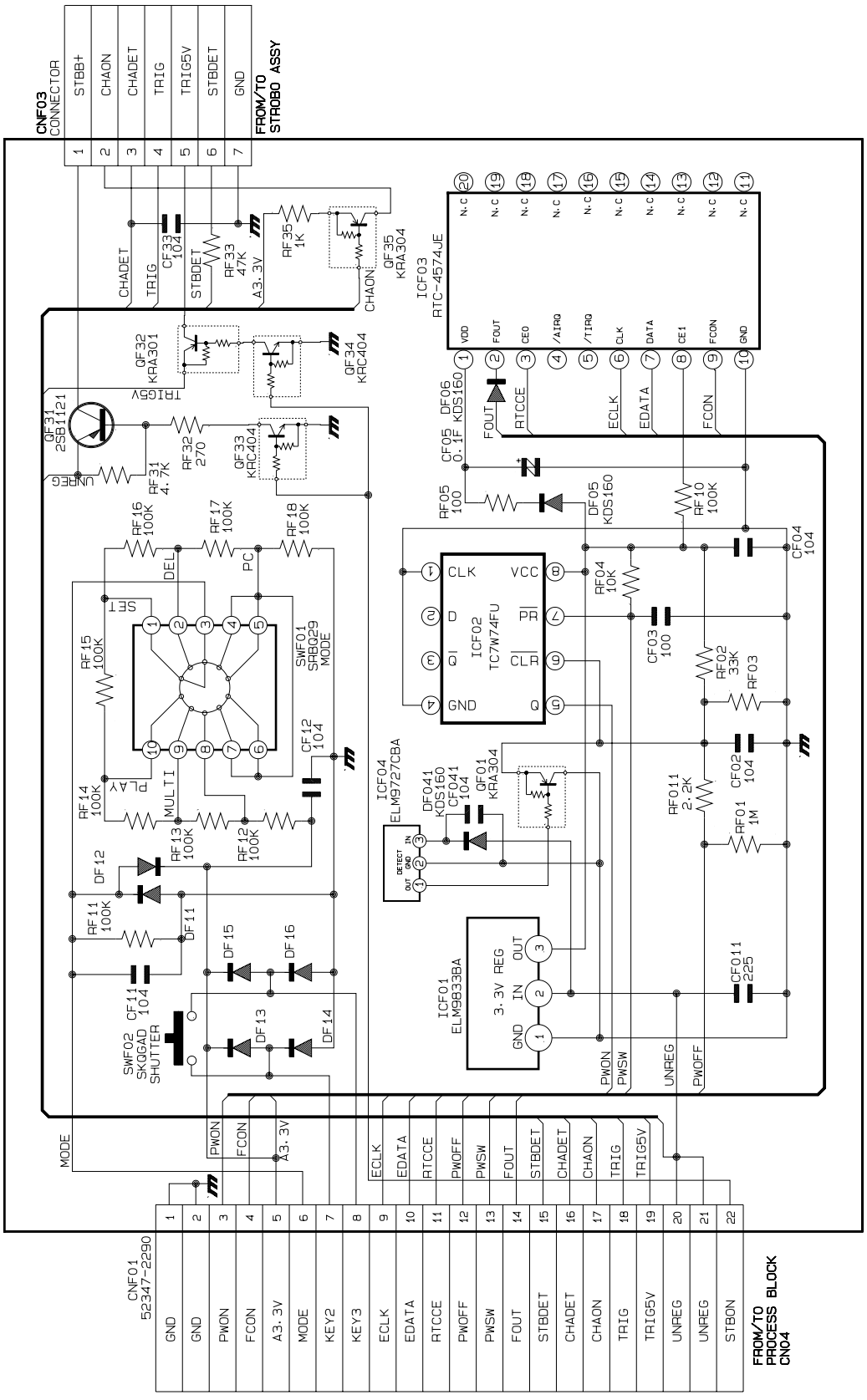
9-7. DC Block (Rev.02,03)



9-8. Charge Block (Rev.02,03)



9-9. Function Block (Rev.02,03)



9-10. Jack Block (Rev.02,03)